TIEBACK RETAINING WALL

State Route 1 approximately 3.2 kilometers (two miles) south of its intersection with State Route 128
01-MEN-01-KP 60.83/61.48 (PM 37.8/38.2)
EA 01-291710

MITIGATED NEGATIVE DECLARATION and INITIAL STUDY

Prepared by the State of California
Department of Transportation
June 2006

Caltrans

Tieback Retaining Wall Project
Negative Declaration and Initial Study
June 2006

Addendum

The approved Mitigated Negative Declaration (MND) and Initial Study stated there would be no impacts to wetlands as defined by the U.S. Army Corps of Engineers (USACE), or wetlands as defined by the California Coastal Commission (CCC). After approval of the MND it was discovered that an area needed for construction access would affect Pacific willow, a CCC-defined wetland. These changes and additions do not necessitate preparation of a subsequent negative declaration as described in Title 14, Section 15162 of the California Code of Regulations.

The text from page 47 is shown below with deleted text in ~~strikethrough~~ followed by added or corrected text in underline.

Affected Environment

No wetlands will be permanently affected ~~by the project because field surveys verified there are no wetlands~~ within the project limits. Drainages within the project area convey only storm run off and do not provide hydraulic conditions to support wetland habitat.

Below the existing roadway and proposed tieback wall, an access road was built on the cliff slope to place rock slope protection at the outlet of one of the existing culverts. The construction of the road altered the topography and created a bench where water is present long enough to support the growth of Pacific willow (*Salix lucida*), which meets the CCC definition of a wetland. The total area of the Pacific willow wetland is 3,050 square feet.

Impacts

There would be no ~~CCC-defined coastal wetlands or~~ USACE-defined wetlands affected by this project. The wall construction would temporarily disturb approximately 2,000 square feet of willows during the two-year duration of project construction.

Caltrans proposes to temporarily reestablish the access road in order to construct the tieback wall. The bench would be used to stage some equipment during construction, particularly the placement of a drill rig to extend the ties into the slope. The use of the area for access would result in the removal of willows, but the topography would not be permanently modified. The impact to the coastal wetland would be temporary during and the wetland would be fully restored. A portion of the willow wetland would be unaffected that could provide parent material for willow cuttings for revegetation.

Due to the steep topography of the area, there is no alternative to access the construction site. If the equipment were to be staged from the road, a large cut into the upland slope would be required and would result in a large scar on the landscape. No feasible less environmentally damaging alternative is available.

Avoidance, Minimization, and/or Mitigation Measures

There are no USACE-defined wetlands in the project limits that would require ~~, therefore, no minimization or~~ mitigation ~~measures are necessary~~.

Caltrans will specify that work within waters of the U.S. will occur when the drainages are not conveying flow.

Upon completion of construction the 2,000 square feet of disturbed CCC-defined wetland would be restored to its prior functioning condition. Pacific willow cuttings from the undisturbed portion of the wetland would be used to revegetate the disturbed area and serve as a control to evaluate the performance of restoration efforts. The monitoring phase of the restoration plan would begin after planting has occurred to verify the establishment and growth of the plants, which would be monitored over a period of three years. A final monitoring report would be evaluated to assure restoration efforts have been met.

The following text would be added to ***Appendix C***, page 76:

Upon completion of construction the 2,000 square feet of disturbed CCC-defined wetland would be restored to its prior functioning condition. Pacific willow cuttings from the undisturbed portion of the wetland would be used to revegetate the disturbed area and serve as a control to evaluate the performance of restoration efforts. The monitoring phase of the restoration plan would begin after planting has occurred to verify the establishment and growth of the plants, which would be monitored over a period of three years. A final monitoring report would be evaluated to assure restoration efforts have been met.

SCH# 2006052057
01-MEN-01-KP 60.83/61.48 (PM 37.8/38.2)
EA 291710

Replacement of a Log Crib Wall with a Tieback Retaining Wall on State Route 1, from KP 60.83 to KP 61.48 (PM 37.8 to PM 38.2)

MITIGATED NEGATIVE DECLARATION

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

6/30/06
Date of Approval

Lena R. Ashley, Chief
North Region Environmental Services - North
California Department of Transportation

STATE OF CALIFORNIA
Department of Transportation

SCH # 2006052057
01-MEN-01 KP60.83/61.48 (PM 37.8/38.2)

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace a crib wall with a new tieback wall on State Route 1, 5.6 kilometers (3.5 miles) north of Elk in Mendocino County, between kilometer posts 60.83 and 61.48 (post miles 37.8 and 38.2).

Determination

Caltrans has prepared an Initial Study for this project and determines from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have no effect on air quality, noise receptors or hazardous waste.
- The proposed project would have no effect on local communities, floodplains or wild or scenic rivers.
- The proposed project would have no effect on archaeological, historic or paleontological sites of record.
- The proposed project would have no effect on any state or federally protected special status species.

In addition, the proposed project would have no significant adverse effect on water quality or visual resources because the following mitigation measures would reduce potential effects to less than significant:

- The proposed project would have no significant effect on water quality because the project would include measures for erosion control, revegetation, and the use of Best Management Practices.
- The proposed project would have no significant effect on visual resources because the project would include measures for aesthetic treatment and revegetation.

Lena R. Ashley, Chief
North Region Environmental Services - North
California Department of Transportation

6/30/06
Date

Summary

The Department of Transportation (Caltrans) proposes to replace a failing log crib wall on the west side of State Route 1 by constructing a new tieback retaining wall. The project is located approximately 3.2 kilometers (2 miles) south of the intersection of State Routes 1 and 128 at the Navarro River Bridge, and 5.6 km (3.5 mi) north of the community of Elk.

This section of State Route 1 crosses a landslide complex that is approximately 200 m (656 ft) wide at the roadway level. The southbound lane is showing signs of failure as a result of movement of the hillside, and the log crib wall supporting the roadway is deteriorating. The new tieback wall would meet geotechnical conditions, safety, operational and design standards. If the crib wall or hillside fails, the roadway would be closed for an extended period of time without any state highway detours available.

The new timber lagging tieback wall would be approximately 200 m (656 ft) in length and constructed below and west of the existing roadway. The completed project would provide for two 3.6 m (12 ft) wide traffic lanes and two 1.2 m (4 ft) paved shoulders. After completing the structural components of the wall, a soil embankment would be placed in front of the wall and landscaped. A see-through barrier would be placed on top of the wall.

Three alternatives being considered vary from one another by the lateral position of the wall relative to the existing road centerline as follows:

- **Alternative 1** would shift the existing highway centerline 1.2 m (4 ft) to the west. The new wall and railing would be 2.4 m (8 ft) west of the existing log crib wall and metal beam guardrail.
- **Alternative 2** would maintain the existing highway centerline. The new wall and railing would be 1.2 m (4 ft) west of the existing log crib wall and metal beam guardrail.
- **Alternative 3** would shift the existing highway centerline 1.2 m (4 ft) to the east. The new wall and railing would be in the same location as the existing log crib wall and metal beam guardrail.

Coordination has taken place with local, state and federal permitting agencies. Permits required for the project include a coastal development permit from Mendocino County, a 1602 Streambed Alteration Agreement from the California Department of Fish and Game, a 401 Water Quality Certification from the North Coast Regional Water Quality Control Board, and a Section 404 permit from the U.S. Army Corps of Engineers.

Table of Contents

List of Figures

List of Tables

List of Abbreviated Terms

ac	acre(s)
BMP	Best Management Practices
CCC	California Coastal Commission
CEQA	California Environmental Quality Act
cm	centimeters
CNPS	California Native Plant Society
DFG	California Department of Fish and Game
ft	foot/feet
ha	hectare(s)
HPSR	Historic Property Survey Report
in	inch(es)
IS	Initial Study
ISA	Initial Site Assessment
km	kilometer(s)
KP	kilometer post
LCP	Local Coastal Program
m	meter(s)
m^2	square meters
m^3	Cubic meters
MBGR	Metal Beam Guard Rail
mi	mile(s)
mm	millimeter(s)
NCRWQCB	North Coast Regional Water Quality Control Board
NPDES	National Pollutant Discharge Elimination System
PM	post mile
PRC	California Public Resources Code
RSP	Rock Slope Protection
SHPO	State Historic Preservation Officer
sq.ft.	square feet
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
y^3	Cubic yards

Chapter 1 Proposed Project

1.1 Introduction

The Department of Transportation (Caltrans) proposes to replace a failing log crib wall on the west side of State Route 1 by constructing a new tieback retaining wall. The project site is a two lane conventional highway with existing lane widths of 3.2m (11 ft) to 3.6m (12 ft) and no paved shoulders. The project is located approximately 3.2 km (2 mi) south of the intersection of State Route 1 and State Route 128 at the Navarro River Bridge (No. 10-130), and 5.6 km (3.5 mi) north of the community of Elk. Figures 1-1 and 1-2 show project vicinity and location maps.

The project is funded in the 2006 State Highway Operation and Protection Program (SHOPP) as a highway rehabilitation and safety project in the Roadway Protective Betterment program for $7,103,000 in the 2008/2009 fiscal year. The project is scheduled for construction in the spring of 2008.

1.2 Background

Three locations were originally identified for this project where there were failing crib walls on State Route 1: Location 1 at KP 6.0/6.3 (PM 3.7/3.9); Location 2 at KP 15.8/16.1 (PM 9.8/10.0); and Location 3 at KP 61.2/61.5 (PM 38.0/38.2), the currently proposed project. Subsequent geologic studies determined that at Location 3, a much longer structure (212.3 m vs. 18.3 m) would be required to stabilize the roadway. Upon this determination, it was decided to proceed with Locations 1 and 2, and address Location 3 as a separate project. Locations 1 and 2 have been constructed.

1.3 Purpose and Need

The purpose of the project is to replace a failing crib wall with a new tieback retaining wall that would meet geotechnical conditions, safety, operational and design standards. The project is needed because the southbound lane is showing signs of failure as a result of movement of the hillside and the log crib wall supporting the roadway is deteriorating. This section of State Route 1 crosses a landslide complex that is approximately 200 m (656 ft) wide at the roadway level. If the crib wall or hillside fails, the roadway would be closed for an extended period of time without any state highway detours available.

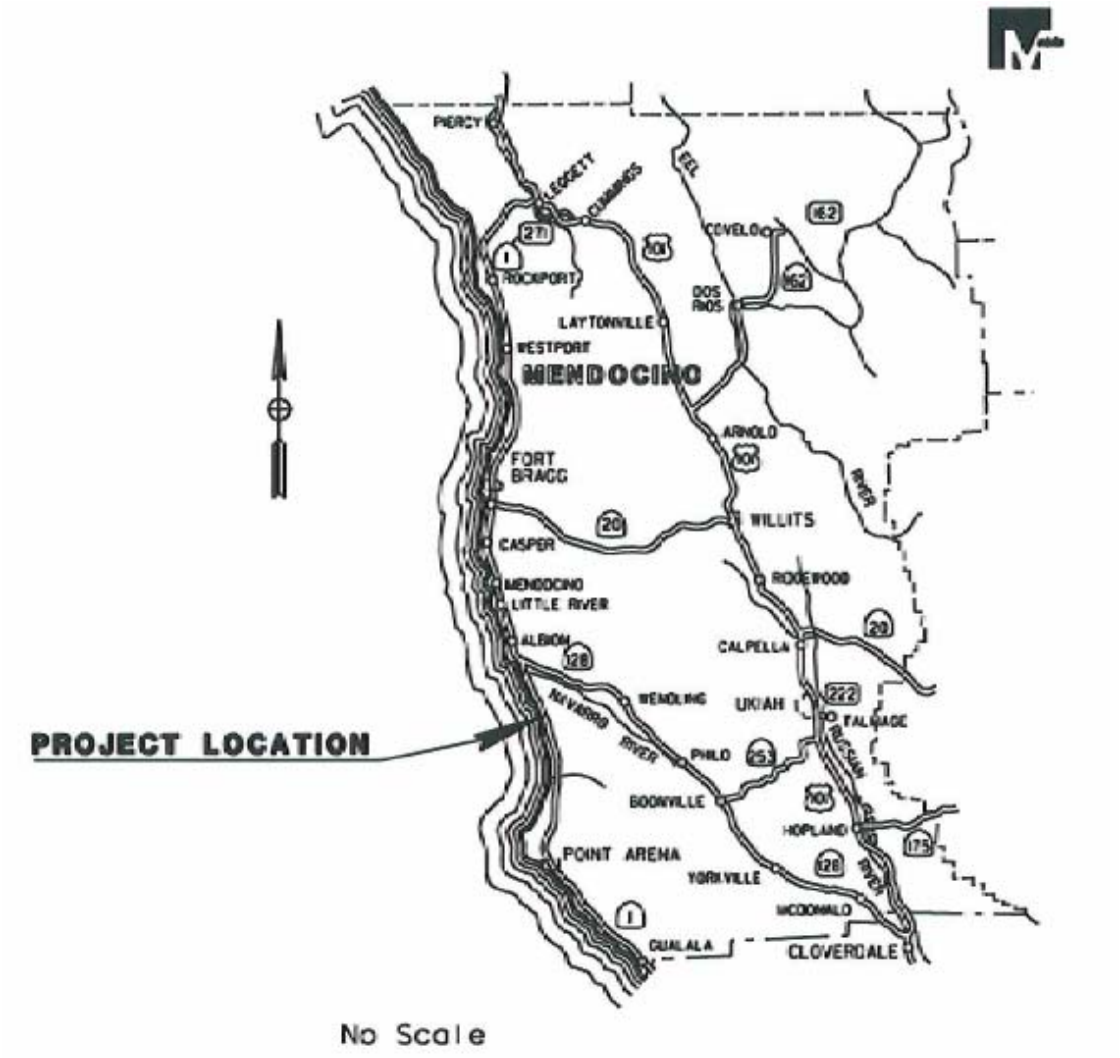

Figure 1-1 Project Vicinity Map

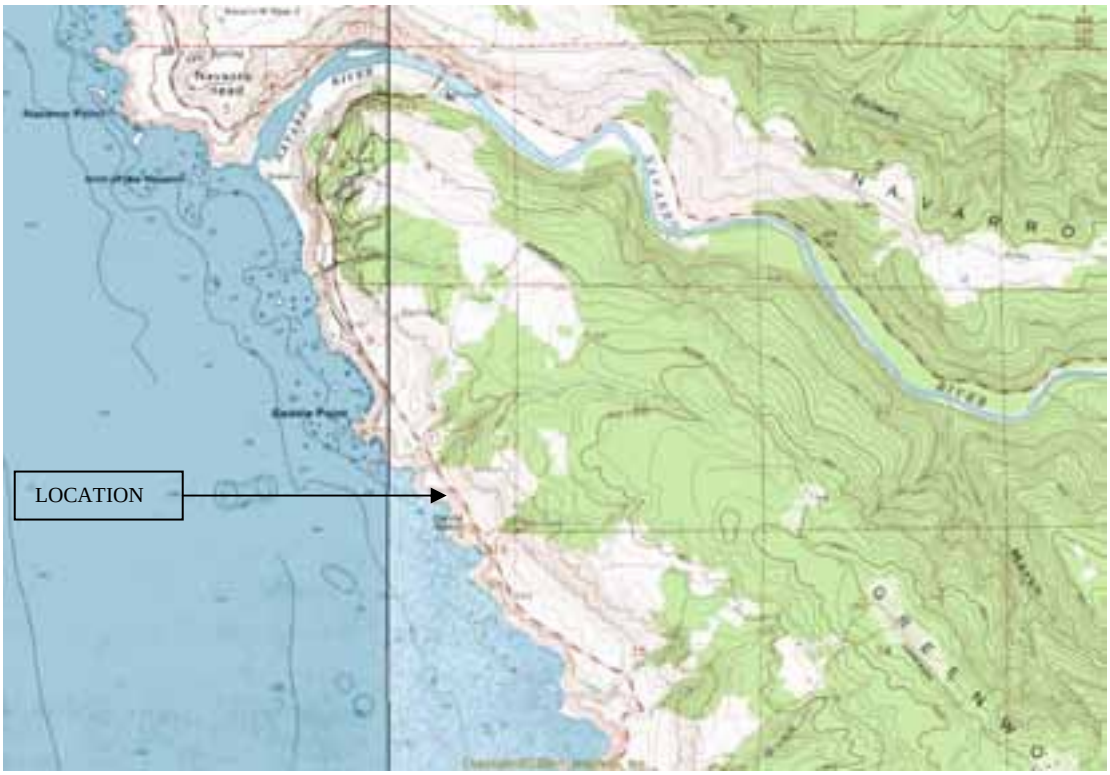

Figure 1-2 Project Location Map

1.4 Alternatives

1.4.1 Build Alternatives

The project has three possible alternatives that share similar project features. All three are soldier pile tieback walls constructed below the highway grade on the west side of the highway. Under each alternative, the tieback wall would be approximately 200 m (656 ft) in length, up to 8 m (26 ft) high, and constructed using steel I-beams and treated timber lagging. The completed roadway configuration would have two 3.6 m (12 ft) wide lanes and two 1.2 m (4 ft) paved shoulders. The alternatives require the same amount of cut to the east side of the roadway to accommodate construction of the wall. Figures 1-3, 1-4 and 1-5 show the layout of each alternative.

Under each alternative, the structural components of the wall would be built, and a soil embankment would be placed in front of the wall at a slope of 1:2, which would leave between 0.2 m (8 in) to 5.1 m (16.7 ft) of the upper portion of the wall exposed. The lower embankment area would be planted, and the top of the wall would have a see-through rail barrier. Under all three alternatives, the vertical profile would be adjusted to not more than 1 m (3.3 ft), and horizontal alignment would remain the same.

Each alternative would include increasing the diameter of one existing culvert, replacing another culvert on a new alignment, and extending the length of a third culvert. An overhead telephone line parallel to the roadway on the west side would be relocated to the east side within the proposed right-of-way under each alternative.

The project would take two complete construction seasons, and would require a signalized, one-way traffic control system for the majority of construction. Temporary K-rail would be placed to separate the work area from traffic during construction. A construction staging area would be located on private property, northwest of the wall location, and a temporary access road would connect the staging area to the construction bench in front of the wall. Permanent right-of-way acquisitions would be required on both sides of the road to accommodate construction and the wall. A temporary construction easement would be obtained for the staging area and wall access on the west side of the roadway. A permanent underground easement on the east side of the road would be required for the placement of the tieback anchors. The total disturbed area for construction, access and staging would be approximately 1.2 ha (3 ac).

Figure 1-3 Alternative 1 Layout

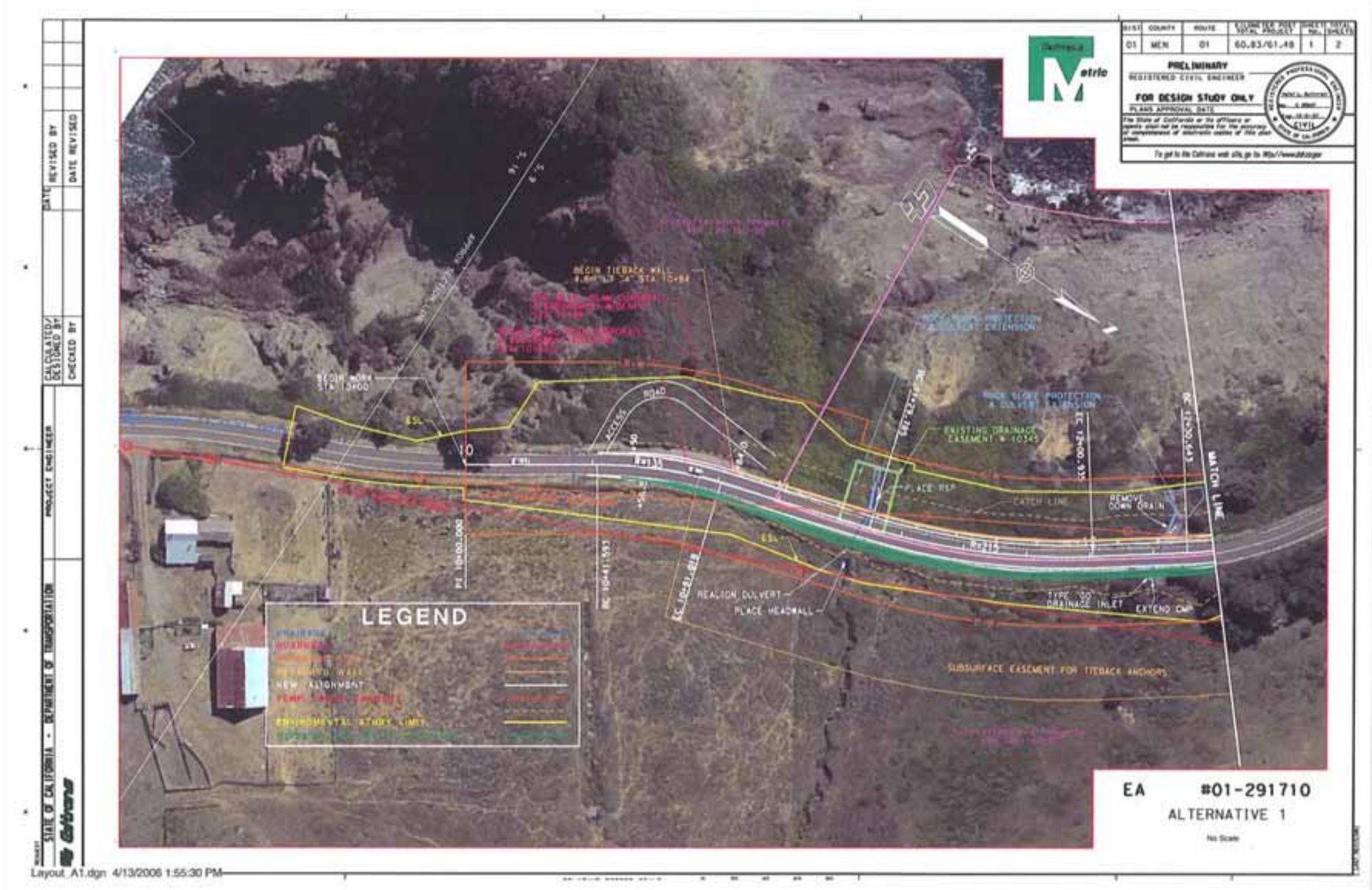


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Figure 1-4 Alternative 2 Layout

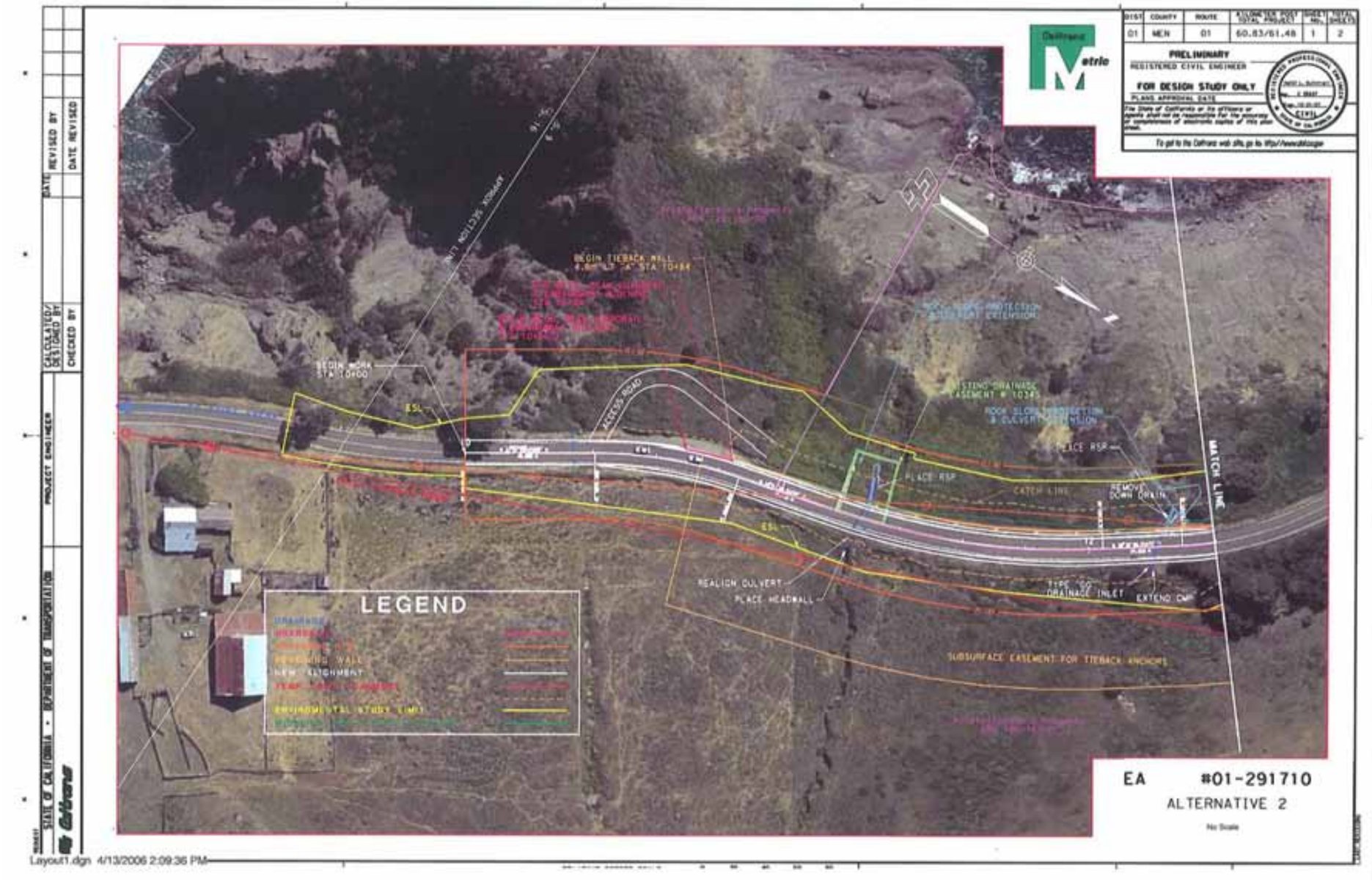


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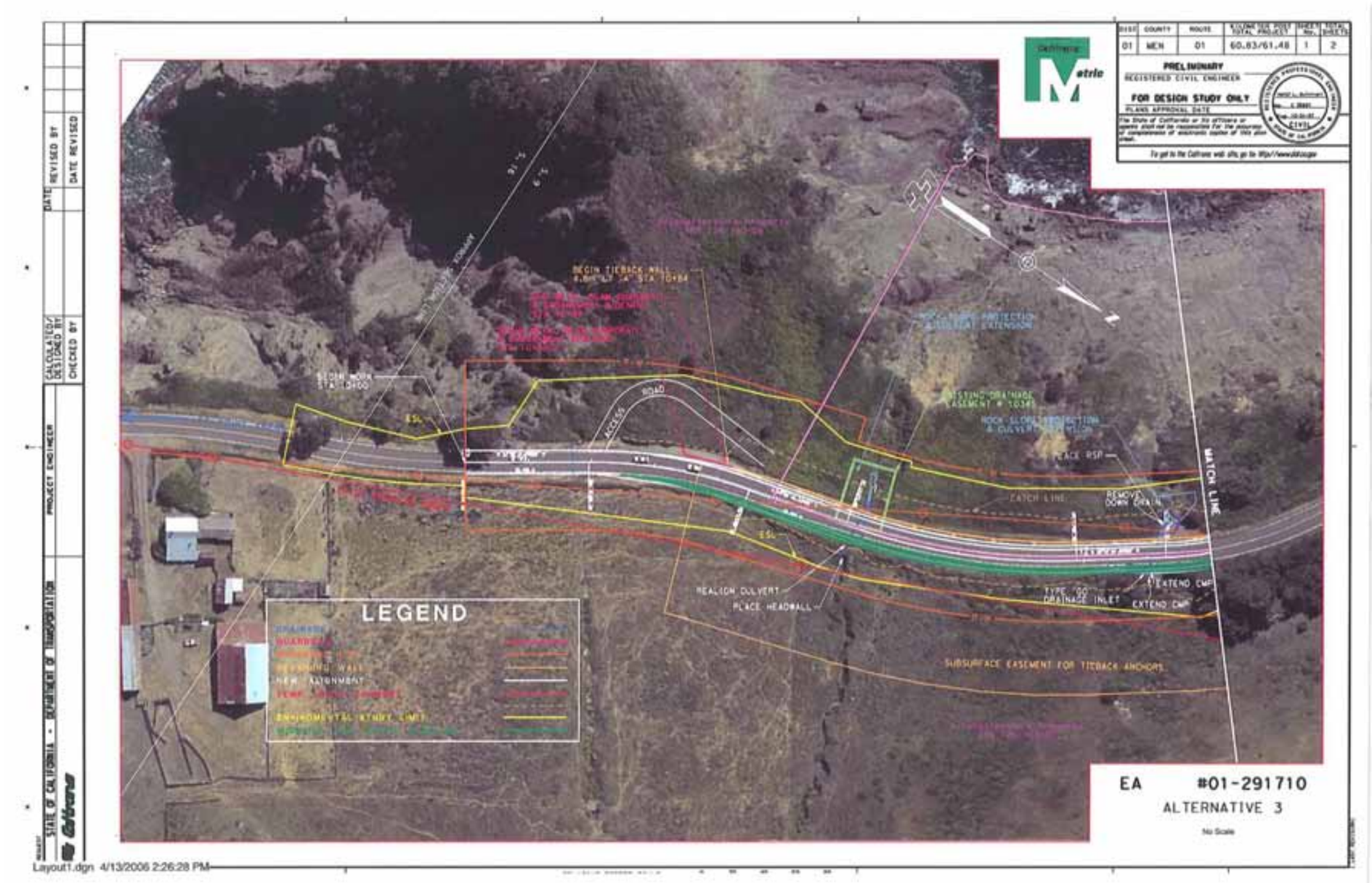
Figure 1-5 Alternative 3 Layout

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1.4.2 No-Build Alternative

Under this alternative, none of the improvements and repairs described above would be constructed. Periodic maintenance and repair would continue on the existing wall and roadway until a catastrophic event occurred that would require emergency replacement.

1.4.3 Comparison of Alternatives

The three alternatives vary from one another by the lateral position of the wall relative to the existing road centerline as follows:

- Alternative 1 would shift the existing highway centerline 1.2 m (4 ft) to the west. The new wall and railing would be 2.4 m (8 ft) west of the existing log crib wall and metal beam guardrail. See Figure 1-6.

- Alternative 2 would maintain the existing highway centerline. The new wall and railing would be 1.2 m (4 ft) west of the existing log crib wall and metal beam guardrail. See Figure 1-7.

- Alternative 3 would shift the existing highway centerline 1.2 m (4 ft) to the east. The new wall and railing would be in the same location as the existing log crib wall and metal beam guardrail. See Figure 1-8.

1.4.4 Alternatives Considered and Withdrawn

When this location was part of the larger project that included three locations, the following alternatives were considered:

Alternative A proposed constructing a sidehill viaduct 61 m (200 ft) in length to replace the existing log crib wall. The structure would have two 3.6 m (12 ft) lanes and two paved 1.2 m (4 ft) shoulders requiring a design exception for bridge width, which requires 2.4 m (8 ft) shoulders. This alternative was withdrawn from further consideration due to high cost and concerns about its ability to withstand lateral pressures from the moving hillside.

Alternative B proposed a concrete retaining wall 61 m (200 ft) in length to replace the existing log crib wall. The roadway segment would have two 3.6 m (12 ft) lanes and two paved 1.2 m (4 ft) shoulders, and require a design exception for a shoulder width

less than 2.4 m (8 ft). This alternative was withdrawn from further consideration due to higher cost and aesthetic impacts.

Alternative C proposed constructing a 427 m (1400 ft) long retreat 6 m (20 ft) to the east of the existing roadway and deteriorating log crib wall. This alternative was withdrawn from further consideration due to substantial right-of-way requirements, the potential instability of proposed cuts, and environmental impacts.

1.5 Permits and Approvals Needed

The following environmental permits are required for the project:

- A Coastal Development Use Permit from the County of Mendocino
- A 1602 Streambed Alteration Agreement from the California Department of Fish and Game
- A 401 Water Quality Certification from the North Coast Regional Water Quality Control Board
- A Section 404 Nationwide permit from the U.S. Army Corps of Engineers

Figure 1-6 Alternative 1 Wall Cross Section

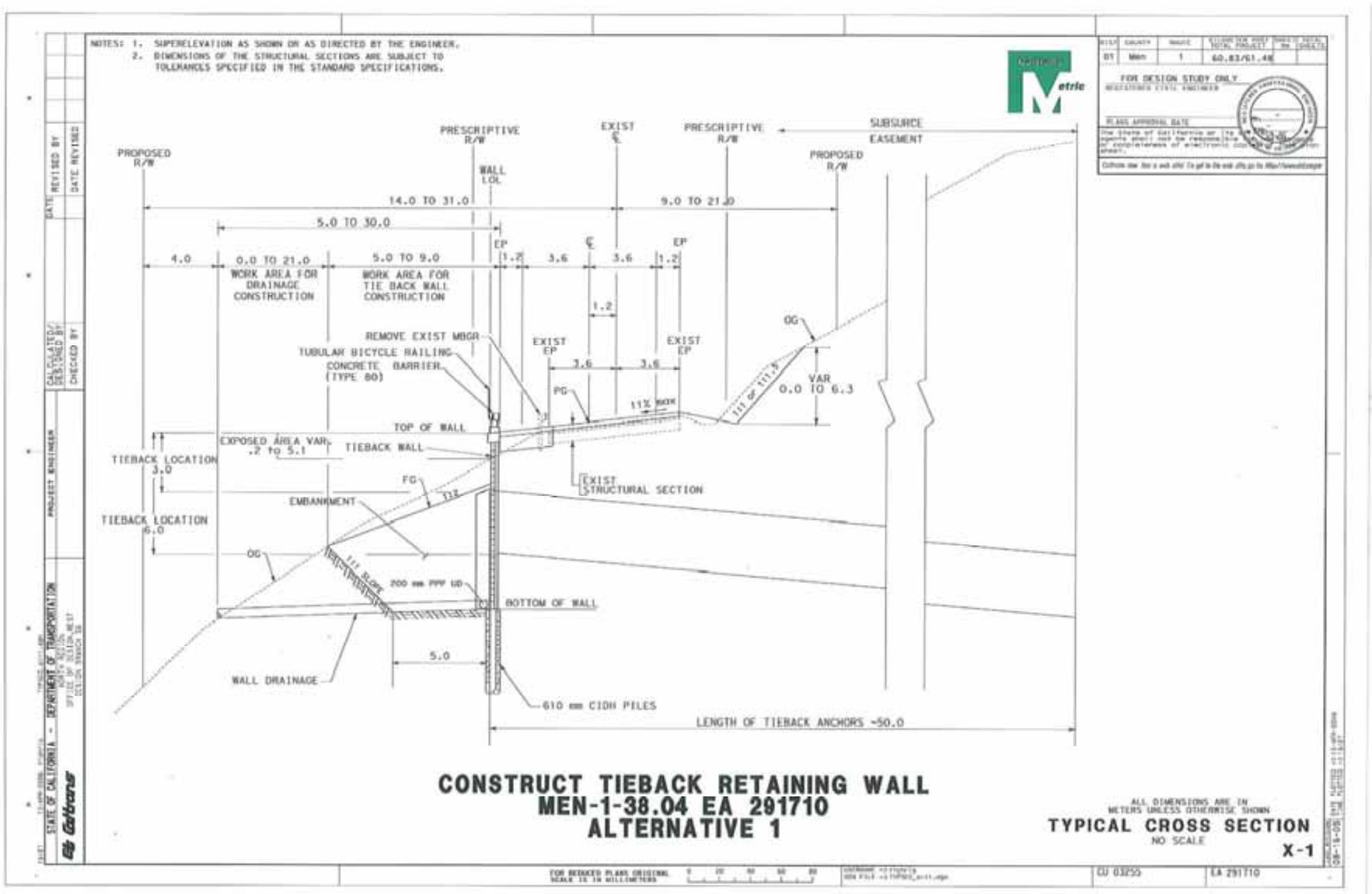


Figure 1-7 Alternative 2 Wall Cross Section

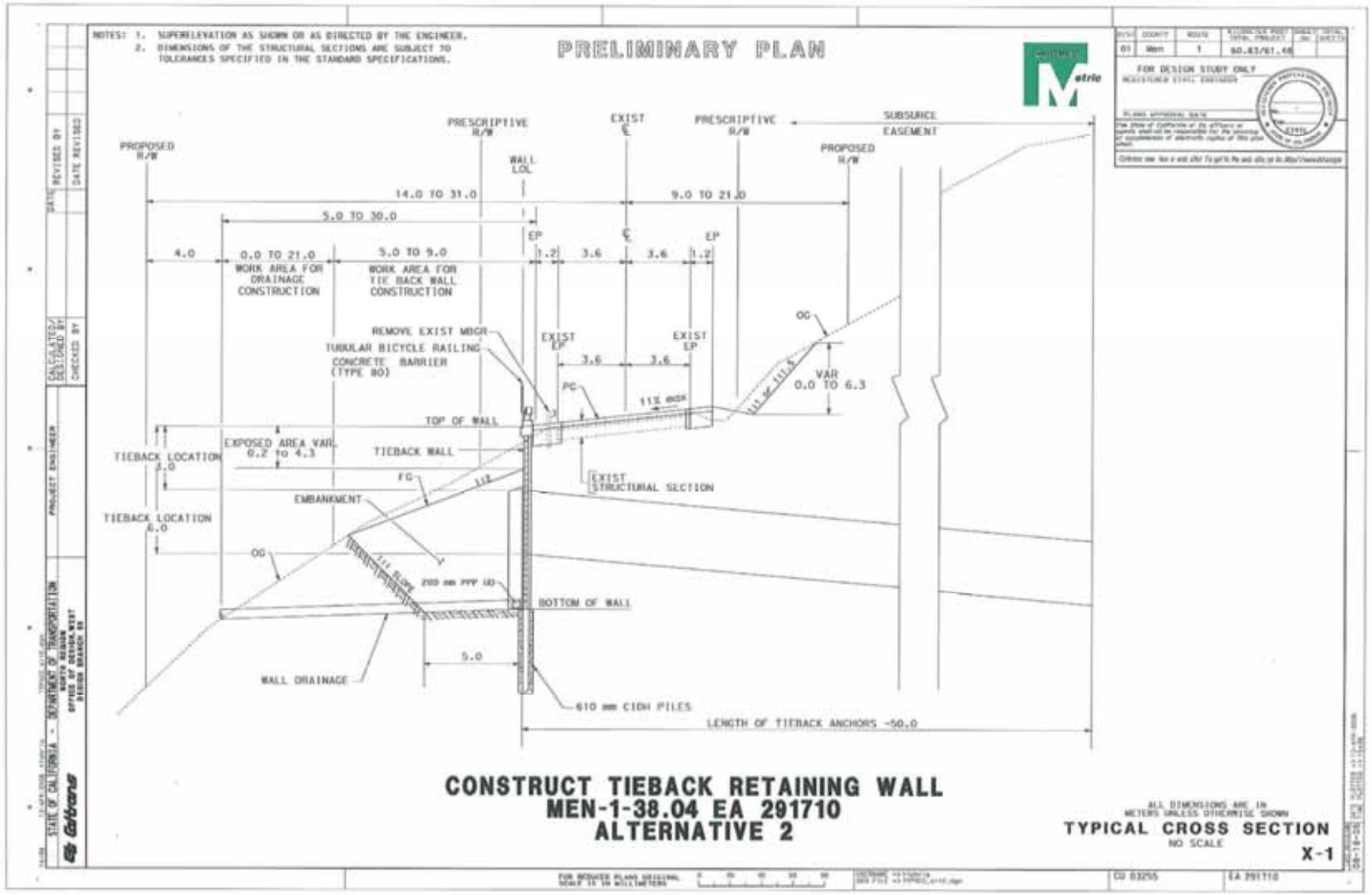
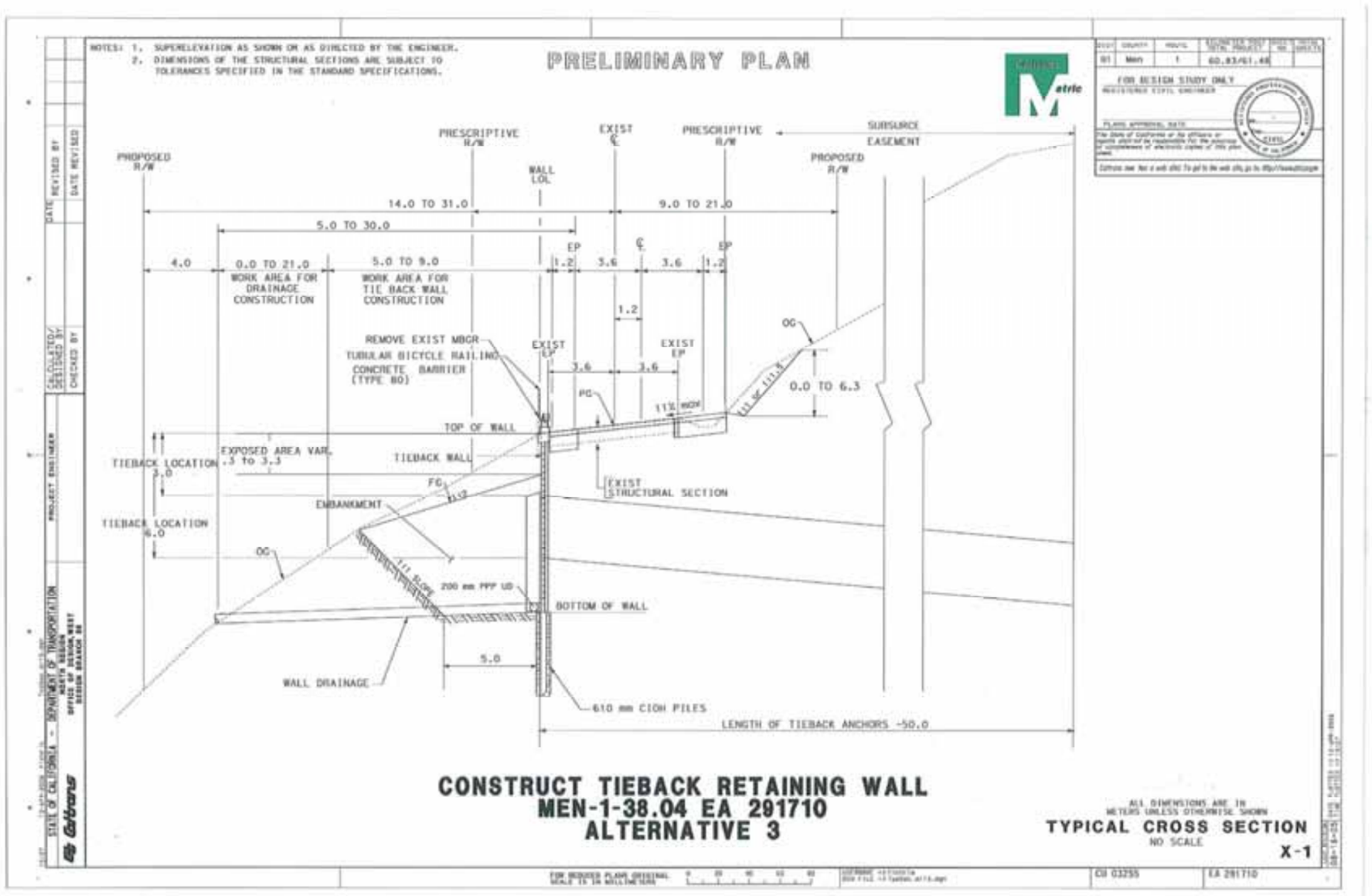


Figure 1-8 Alternative 3 Wall Cross Section



Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project and potential impacts from each of the alternatives.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered, but no potential for adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

- Land Use — no impact
- Growth — no impact
- Farmlands/Timberlands — no impact
- Community Impacts — no impact
- Hydrology and Floodplain — no impact
- Paleontology — no impact
- Animal Species — no impact
- Threatened and Endangered Species — no impact
- Wild and Scenic Rivers — no impact

2.1 Human Environment

2.1.1 Consistency with State, Regional, and Local Plans

Regulatory Setting

Each state highway has a Route Concept Report (RCR), which is prepared by Caltrans' District staff in cooperation with local and regional agencies. The RCR is a planning document that describes the Department's conceptual improvement options for a given transportation route or corridor. Considering reasonable financial constraints and projected travel demand over a 20-year planning period, the RCR considers transportation facility needs for each route or corridor. The objective of the RCR is to have local, regional, and state consensus on route or corridor concepts, improvement goals, and strategies; however, it provides concept information only and does not determine policy nor establish a course of action.

The Route Concept serves as a guide for long range planning for Route 1. It protects the state's investment in the Route, while recognizing financial constraints that would not allow extensive improvements.

Caltrans Design Standards for resurfacing, restoration, and rehabilitation (3-R) are based on minimum existing width and annual average daily traffic (AADT). These standards permit rehabilitation at present width, as long as the traveled way and usable shoulder width meets minimum requirements that range from 7.2 m (24 ft) to 9.6 m (32 ft), depending on traffic volumes. Standards require that sections having overall widths less than the minimum standards must be widened to the desirable standards, which range from 7.2 m (24 ft) to 12 m (40 ft), also depending on traffic volumes.

Less than half of Route 1 meets the minimum width standard. The remaining segments would need to be widened to the desirable standards in conjunction with rehabilitation work. However, the widening of these segments that do not meet "3-R" standards may not be prudent for the following reasons:

1. Costs to widen narrow sections would be inordinately high because of rugged terrain.

2. Existing vertical and horizontal alignment does not meet current standards. Widening without improving alignment could result in collision concerns. If the pavement is wide, the general expectation is that highway alignment will be good (e.g., no short radius curves and good sight distance).

3. Environmental impacts could be significant. Widening could impact biological, historic or archeological resources. Further, the scenic character of the highway could be damaged.

4. Widening Route 1 to beyond 9.6 meters (32 ft), in rural areas would be inconsistent with the Coastal Act and the Local Coastal Plan.

Bridge railing treatments are particularly important on Route 1 due to the scenic beauty of the landscape and Department negotiations with the California Coastal Commission (CCC). Design and construction of railings and retaining wall treatments must incorporate designs providing a maximum amount of visibility through the structure to the landscape, such as Type 80 and ST-10.

The CCC and the Coastal Conservancy are currently studying the possibility of developing a coastal trail from Oregon to Mexico with preferred routing along the coast to afford visitors views of some of the most majestic vistas in California. Reconstruction and rehabilitation strategies involving Route 1 are to incorporate provisions for accommodating the coastal trail where feasible.

The Coastal Zone Management Act of 1972 is the primary federal law enacted to preserve and protect coastal resources. The Coastal Zone Management Act sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the Coastal Zone Management Act; they include the protection and expansion of public access and recreation, the protection, enhancement, and restoration of environmentally sensitive areas, the protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal

Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments (15 coastal counties and 58 cities) to enact their own Local Coastal Programs (LCP). An LCP determines the short- and long-term use of coastal resources in the relevant jurisdiction consistent with the California Coastal Act goals. The County of Mendocino has adopted an LCP, and the Coastal Commission has delegated coastal permit authority to the County. The Land Use Plan (LUP) portion of the Mendocino County LCP is called the Coastal Element, and policies relevant to the proposed project include:

Coastal Element Policy 3.8-6: It shall be a goal of the Transportation Section to achieve, where possible and consistent with other objectives of The Coastal Act and plan policies for Highway 1, a road bed with a vehicle lane width of 16 feet including the shoulder to achieve a 32 foot paved roadway (12-foot vehicle lane and 4-foot paved shoulder). The minimum objective shall be a 14-foot vehicle lane width (10-foot vehicle lane and 4-foot paved shoulder). New widening projects shall be allocated, first to safety and improved capacity needs and secondly to paved shoulders.

Coastal Element Policy 3.6-20: Paved 4-foot shoulders should be provided by Caltrans along the entire length of Highway 1 wherever construction is feasible without unacceptable environmental effects.

Coastal Element Policy 3.5-1: State Highway 1 in rural areas of the Mendocino County coastal zone shall remain a scenic two-lane road. The scenic and visual qualities of Mendocino County coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas designated by the County of Mendocino Coastal Element shall be subordinate to the character of its setting.

Affected Environment

This section of Route 1 crosses a landslide complex that is approximately 200 m (656 ft) wide at the roadway level. The southbound lane is showing signs of failure as a

result of movement of the hillside and the existing log crib wall supporting the roadway is deteriorating. If the crib wall or hillside fails, the roadway would be closed for an extended period of time without any state highway detours available. Construction of a new tieback retaining wall would meet geotechnical conditions, safety, operational and design standards.

Impacts

Route 1 at this location is a two lane conventional highway with existing lane widths of 3.2m (11 ft) to 3.6m (12 ft) and no paved shoulders. The three build alternatives would modify this section of Route 1 by constructing a soldier pile tieback wall below the highway grade on the west side of the highway. Under each alternative, the tieback wall would be approximately 200 m (656 ft) in length, up to 8 m (26 ft) high, and constructed using steel I-beams and treated timber lagging. The completed roadway configuration would have two 3.6 m (12 ft) wide lanes and two 1.2 m (4 ft) paved shoulders. The alternatives require the same amount of cut to the east side of the roadway to accommodate construction of the wall.

Avoidance, Minimization, and/or Mitigation Measures

The design and construction of the project has been guided by the policies of the RCP and the County's LCP, within the context of the existing terrain and construction limitations of the project. The proposed project is consistent with the policies, in that:

- The roadway would have two 3.6 m (12 ft) wide lanes and two 1.2 m (4 ft) paved shoulders.
- Disturbance would be the minimum necessary to achieve construction of the project, and includes using cut slopes of 1:1.5 or greater.
- Disturbed areas would be recontoured and revegetated.
- The use of timber lagging for the face of the tieback wall would be visually compatible with the area.
- The use of a see-through barrier railing and aesthetic treatment would be used to protect public views to the ocean.

2.1.2 Utilities/Emergency Services

Affected Environment

Caltrans has consulted with Pacific Gas and Electric (PG&E) and SBC on this proposed project. Overhead electrical lines are located east of the highway, outside of the project limits, and there is an overhead telephone line within the project limits. The telephone line is located on the east side of the highway at the northern project limit, crosses to the west side of the highway, and then crosses back to the east side near the southern project limit.

Impacts

The overhead telephone line will require relocation from the west side of the highway. The project would have no impact to electrical lines. The roadway would be reduced to one-way controlled traffic during construction, and may require temporary closure. This would affect all traffic, including emergency service vehicles.

Avoidance, Minimization, and/or Mitigation Measures

The overhead telephone line would be relocated to the east side of the highway within the right-of-way. Utility relocation or replacement work would be conducted in a prompt and timely manner to avoid impacts to local users. During construction the roadway would be open to one-way controlled traffic, which would allow transport for emergency vehicles. A Transportation Management Plan also has been prepared that provides for advance notification and communication with emergency service agencies.

2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

The Federal Highway Administration directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Caltrans and the Federal Highway Administration are committed to carrying out the 1990 Americans with Disabilities Act (ADA) by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

Affected Environment

The existing two-lane roadway has lane widths of 3.2m (11 ft) to 3.6m (12 ft), and there are no paved shoulders. State Route 1 is part of the Pacific Coast Bike Route, and has seasonally high bicycle traffic volumes during the summer months.

The Mendocino Council of Governments (MCOG), in its 2001 Regional Transportation Plan, notes that: “The designation of this route as a bikeway is a source of constant concern to MCOG, as the route is unimproved, with most segments lacking shoulders, adequate sight distance, and guardrails adjacent to the Pacific Ocean.”

Impacts

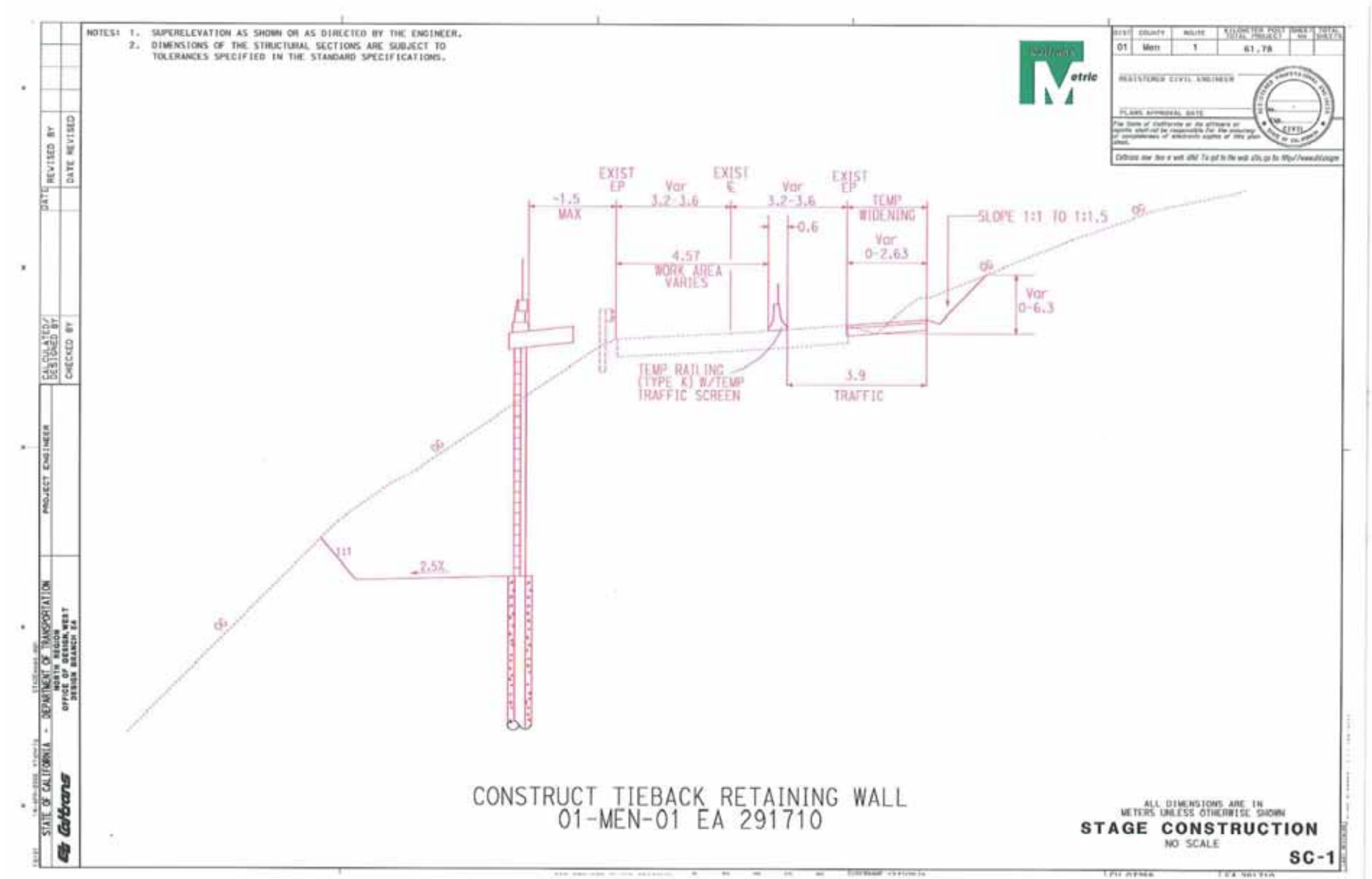
Construction of the tieback wall will require single lane closure, and may require full closure during some construction activities. The width of the travel way through the work area would be one 3.6 m (12 ft) lane and a paved 0.3 m (1 ft).

See Figure 2-1, Stage Construction.

Avoidance, Minimization, and/or Mitigation Measures

Bicyclists would continue to have access through the work area during construction, subject to the same traffic controls as motorists. The provision of 1.2 m (4 ft) paved shoulders in the completed project would be an improvement over current conditions that confront bicyclists at this location.

Figure 2-1 Stage Construction 1



2.1.4 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts including, among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*, natural, scenic, and historic environmental qualities." [California Public Resources Code Section 21001(b)]

In addition, Caltrans' policy on "Context Sensitive Solutions" directs designers to consider the proposed project's surroundings and develop transportation solutions that are compatible with those surroundings.

California State Route 1 is one of the most highly scenic roadways in the state. The Mendocino County LCP has regulations about where and how development can occur in the coastal zone. Sec. 20.504.010 of the Visual Resource and Special Treatment Areas section of the Mendocino County Coastal Zoning Code states "The purpose of this section is to insure that permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas."

The visual quality along the existing alignment is highly scenic and the final project design should minimize the effect on the visual setting. This section of Route 1 has been found 'Eligible' for scenic highway designation on the California Scenic Highway System. It is also part of the Pacific Coast Bike Route and has a seasonally high amount of touring bicyclists during the summer.

Affected Environment

The project area is approximately 61 m (200 ft) to 70 m (230 ft) above sea level overlooking the Pacific Ocean in Mendocino County. The community of Elk is located 5.6 km (3.5 mi) south of the project area. Views within the project area range from expansive views westward of the Pacific Ocean, the coastal bluffs to the north and south, and the Coast Range, which rises above the shoreline to the east. The overall visual quality of this area is extremely high.

The cold waters of the Pacific Ocean moderate the climate along the coast. Summers are often foggy and cool with daily high temperatures ranging from the mid-60's F during the day to the 50's F at night. Although there is little rainfall during summer, dense fog often coats everything with a light covering of moisture. Winters are slightly cooler and often rainy. Temperatures range from the 50's F during the day to the 40's F at night. The area receives an average of 40.8 inches of rainfall annually, most of which occurs between October and April.

The project site consists of a coastal bluff area vegetated with northern coastal scrub. Northern coastal scrub communities are generally found on coastal slopes and elevated marine terraces and grow in a variety of soils. The dominant shrub species are mostly 1-2 m (3.3 – 6.6 ft) tall evergreens, with coyote brush (*Baccharis pilularis*) or thimble berry (*Rubrus parviflorus*) being most common. The forest edge is visible in the middle and background. To the north of the project limits are riparian woodlands, which include redwood, Douglas fir, big leaf maple, willow and alder. The redwood forest is visible farther inland to the east.

In addition to the highway, human-made features include an adjacent ranch consisting of a cluster of buildings east of the highway approximately 100 m (328 ft) south of the project limits. The cluster of buildings includes a residence, cabin, two barns and two sheds. A residentially developed property containing two residences and a barn is located west of the highway approximately 240 m (787 ft) north of the project limits.

Impacts

The soldier pile tieback retaining wall would be approximately 200 m (656 ft) long by approximately 8 m (26 ft) high. The wall would be backfilled with embankment material and have an exposed surface area visible from the Pacific Ocean ranging from 0.2 m (8 in) to 5.1 m (16.7 ft) in height. The embankment fill would have a finished grade of 1:2 or flatter. The existing Metal Beam Guardrail (MBGR) would be replaced

with Type 80 concrete barrier. Bike railing would be attached to the outside of the horizontal rail. The retaining wall, Type-80 Barrier Rail and portions of the fill slope would be visible from the Pacific Ocean although existing vegetation would reduce some views of the lower section of the fill slope. Wall drainage pipe would be slightly visible from the ocean.

The principal difference between the three alternatives is the location of the centerline compared to the existing condition. The visual setting would be relatively the same with each of the alternatives. There would be no noticeable differences to the proposed cut slope east of the highway alignment when analyzing the three alternatives. Shifting the alignment 1.2 m (4 ft) to the east as proposed in Alternative 3 could result in a slight increase to the cut slope on the east side of the highway, although it would be visibly negligible compared with the other two alternatives.

Traffic handling during construction of the retaining wall would require cutting into the slope east of the alignment to provide adequate space for one-way traffic. The cut slope would range between 1:1 and 1:1.5 in steepness and have a maximum height of 5.75 m (19 ft). The magnitude of excavation and proposed grading of the existing cut slope would be the same for all three alternatives. Existing vegetation would be removed prior to excavation of the cut slope. Vegetation to be removed includes grasslands and at least a third of a cluster of Monterey pine on the east side of the highway near the northern project limits.

The project design calls for the use of the California Type-80 railing. This railing type provides for improved visibility of the surrounding landscape compared to the style of bridge railings used on highway projects in the past 10 or 20 years. The Type-80 is 81 cm (32 in) high with a 30 cm (12 in) horizontal concrete rail and a 23 cm (9 in) high concrete foundation. The 38 cm (15 in) thick posts are concrete and spaced at 3 meters (10 ft) and there is a 28 cm (11 in) window between the railing and the foundation. When viewed from the highway, Type-80 has 35% window area and 65% solid surface. A 58 cm (23 in) high bicycle railing would be attached to the side of the horizontal rail, which is a requirement on designated bicycle routes. If Type 80 is used, coloration of the concrete elements should be considered to reduce its level of visibility from the Pacific Ocean.

Although Type 80 bridge rail has been proposed for this project, ST 20 bridge rail and MBGR also should be considered because of their greater 'see-through' characteristics when compared to the Type 80.

The ST-20 bridge railing type was approved for use in 2004. This railing type provides for optimum visibility of the surrounding landscape. The ST-20 is designed for use on bicycle and pedestrian corridors. The overall structure height including the bicycle railing is 137 cm (54 in). The main railing height is 119 cm (47 in) with four 8 to 10 cm (3 to 4 in) thick horizontal rails and a 5 cm (2 in) thick bicycle rail above the main rail structure. The bicycle rail is attached to the vertical posts. The concrete foundation is 15 cm (6 in) high. The mostly see-through vertical posts are 28 cm (11 in) thick and are spaced at approximately 3 meters (10 ft). There is a total of 81 cm (32 in) high window between the posts, rails and foundation. When viewed from the highway, the ST-20 has 68% window area and 32% solid surface.

See Figure 2-2, Type-80 Barrier Rail; and Figure 2-3, ST-20 Barrier Rail.

This project has the potential to create high impacts to the visual character of the highway within the project limits. Visual impacts would include the construction of the soldier pile retaining wall; alterations to an existing cut slope; removal of existing vegetation in the project limits; alterations to existing culverts; temporary construction access; and contractor activity at the proposed staging area.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would reduce the level of impacts to an acceptable level:

- The selection of a see-through barrier to protect views to the ocean. If the Type 80 barrier is used, the concrete elements would be colored to reduce its level of visibility from the Pacific Ocean.
- Culverts or drainage pipe visible from the Pacific Ocean would be colored to reduce its visibility.
- Embankment slopes below the retaining wall would be revegetated with native plants.
- Revegetation of the slope east of the roadway where Monterey pine would be removed.
- The temporary construction access would be recontoured to a natural contour and revegetated with native shrubs and grasses.

- Any alterations to the existing contour of the temporary construction staging area would be graded to previous conditions and revegetated with native grass species.

Figure 2-2 Type-80 Barrier Rail

Figure 2-3 ST-20 Barrier Rail

2.1.5 Cultural Resources

Regulatory Setting

"Cultural resources" as used in this document refers to historic and archaeological resources. The primary federal laws dealing with historic and archaeological resources include:

The National Historic Preservation Act, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2004, a Section 106 Programmatic Agreement among the Advisory Council, the Federal Highway Administration, the State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement takes the place of the Advisory Council's regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans.

Historical resources are considered under the California Environmental Quality Act, as well as California Public Resources Code Section 5024.1, which established the California Register of Historical Resources. Section 5024 of the Public Resources Code requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register, or are registered or eligible for registration as California Historical Landmarks.

Affected Environment

An Historic Property Survey Report (HPSR) has been completed for the proposed project. Methods to determine the potential effects on cultural resources included a record search at the California Historical Resource Information System's Northwest Information Center (Sonoma State University, Rohnert Park), discussion with local Native American groups, and field surveys.

The field survey observed that the project area contains one historic-period architectural feature that has the potential to be a cultural resource. This feature, identified as "Farm at 2401 S. Highway 1", is a parcel of land which includes a main residence (ca. 1890), a small cabin, two barns, two sheds, and a cistern. The property evaluation was based on the criteria of significance in national, regional, and local history, architecture, engineering/design, and association with historically significant persons. These criteria were evaluated taking into consideration the integrity of the property with regards to: setting, location, design, materials, workmanship, feeling, and association. The evaluation determined the site is not eligible for listing in the National Register of Historic Places (NRHP) or for listing on the California Register of Historic Resources. The basis for this determination is that the property has suffered loss of integrity due to alterations to the main residence and the cabin, and the site has no associations with significant historic events, persons, or architectural design.

Impacts

The field survey of the project limits found no prehistoric cultural resources; the Northwest Information Center record search showed no cultural resources had been recorded within or immediate adjacent to the project limits; and the Native American consultation did not identify any cultural resources of concern for the project area.

The HPSR determined that the project would have no impacts on cultural resources, and there are no properties affected by the proposed project that are eligible for the NRHP. The SHPO has concurred with the determination in a letter dated April 6,2006.

Avoidance, Minimization, and/or Mitigation Measures

This proposed project was examined for impacts to both historic and cultural resources. No historic properties, archaeological or cultural resources would be affected, therefore, no avoidance, minimization, or mitigation measures are necessary.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

In the event that human remains were discovered during construction, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, who would then notify the Most Likely Descendent. Caltrans Archaeologists would then work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act, the primary federal law regulating water quality, requires water quality certification from the state board or regional board when a project: 1) requires a federal license or permit (a Section 404 permit is the most common federal permit for Caltrans projects), and 2) would result in a discharge to waters of the United States.

Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Section 402 of the Clean Water Act, the State Water Resources Control Board adopted an NPDES, Statewide Storm Water Permit to regulate storm water discharges from all of Caltrans' rights-of-way, properties, facilities and activities. The permit regulates both storm water and non-storm water discharges during and after construction.

In addition, the State Water Resources Control Board adopted a Statewide NPDES Construction General Permit for discharges of storm water runoff associated with construction activities for the State of California. The Statewide Construction General Permit applies to all construction activities in the State of California that result in 1

acre or more of disturbed soil area. This Construction General Permit can also apply to a number of smaller projects that are part of a common plan of development, or projects that have the potential to significantly impair water quality as determined by the Regional Water Quality Control Boards. Caltrans projects that are subject to the Statewide Construction General Permit require a Storm Water Pollution Prevention Plan (SWPPP) be prepared. Caltrans projects that result in a disturbed soil area of less than 1 acre are required to prepare a Water Pollution Control Program in accordance with Caltrans Standard Specifications.

The California Environmental Protection Agency has delegated administration of the federal NPDES program to the State Water Resources Control Board (SWRCB). The SWRCB has delegated the enforcement of the NPDES program to the nine Regional Water Quality Control Boards. This project is located within the jurisdiction of the North Coast Regional Water Quality Control Board.

Subject to Caltrans' review and approval, the contractor would prepare the SWPPP for this project. The SWPPP would identify construction activities that could result in pollutants in storm water discharges, and best management practices (BMPs) to control these pollutants. The following discussion focuses on anticipated pollution sources or activities that could result in pollutants in the storm water discharges.

Laws regulating water quality include the California Porter-Cologne Water Quality Act, Safe Drinking Water Act, and Pollution Prevention Act. State water quality laws are codified in the California Water Code, Health and Safety Code, and Fish and Game Code, Section 5650-5656.

Affected Environment

The existing highway was constructed on a combination of cut slopes (east side) and fill slopes (west side). A metal beam guardrail (MBGR) is located along the west side of the highway, and a wooden crib wall is located beneath the highway. The structural components of the tieback wall would be constructed, and a revegetated soil embankment would be placed in front of the wall at a slope of 1:2. Each alternative would include increasing the diameter of one existing culvert, replacing another culvert on a new alignment, and extending the length of a third culvert to accommodate the added width of the roadway.

A construction staging area would be located on private property, northwest of the wall location, and a temporary construction access would connect the staging area to

the construction bench in front of the wall. The total disturbed area for construction, access and staging would be approximately 1.2 ha (3 ac).

Impacts

Existing drainage courses would not be altered. All surface waters within the project limits consist of ephemeral streams or storm water runoff. Storm water runoff from the highway would follow the same courses after construction, with minor changes to the existing culverts. All culverts would continue to convey water under the highway onto Rock Slope Protection (RSP). The receiving water would continue to be the Pacific Ocean.

Avoidance, Minimization, and/or Mitigation Measures

The contractor prepared SWPPP would include BMPs for preventing storm water impacts during and after construction, and include BMPs to prevent erosion at all new inlets to existing drainage facilities.

All disturbed soil areas not part of the operational roadway and wall would be revegetated as part of the proposed project.

2.2.2 Geology/Soils/Seismic/Topography

Regulatory Setting

This section discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Caltrans' Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. The current policy is to use the anticipated Maximum Credible Earthquake from young faults in and near California. The Maximum Credible Earthquake is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time. Topographic and geologic features are also protected under the California Environmental Quality Act.

Affected Environment

The site is located in the Coastal Belt Franciscan unit (TKfs). This unit is Tertiary to Cretaceous era. The TKfs unit is composed of well-consolidated clastic sedimentary rocks; mainly sandstone and shale, may contain limestone and conglomerate; highly sheared in places. The highway was constructed on a combination of cut slopes (east side) and fill slopes (west side). The area surrounding the highway consists of mostly

naturally vegetated cut and fill slopes. The project limits are approximately 61 m (200 ft) to 70 m (230 ft) above mean sea level.

The “Soil Survey of Mendocino County, California, Western Part”, identifies soils within the project limits as Dystroperpts and Mallopass.

Dystroperpts consist of soils on side slopes of marine terraces. These soils formed in material derived from sandstone or shale. The vegetation is mainly brush or grass and grand fir, Douglas fir, and redwood. These soils are shallow or moderately deep to bedrock and are well drained.

Mallopass soil is very deep, moderately well drained and found on marine terraces and coastal fan terraces. It formed in alluvium derived from mixed rock sources. The vegetation is mainly perennial grasses and forbs.

Surface soils observed at the site consist of medium to orange-brown silty sand, fine to coarse grained, in a moist state. The silty sand varies in depth from 1 m (3.3 ft) to 1.5 m (4.9 ft). Several outcroppings of dark brown siltstone were observed on the slope in the study area. Vegetation consisted of brush, bramble, trees and grass. The existing slope is about 1 vertical to 4 horizontal above, and 1 vertical to 1 horizontal below the highway.

The near-surface soils encountered in the exploratory soil borings consisted of loose light brown silty sand, fine to coarse grained, in a moist state. Below the soil layer, dark gray shale and gray sandstone (greywacke) and siltstone, intensely weathered, hard, extended to the maximum depth explored of 12.2 m (40 ft) below existing ground surface.

Groundwater was not encountered during the subsurface investigations.

Impacts

According to Caltrans California Seismic Hazard Map, dated 1996, the San Andreas North fault, located approximately 3 km (1.8 mi) west of the site could produce a maximum credible earthquake of magnitude 8.0. The map also indicates that the maximum credible earthquake from this site would result in a peak horizontal bedrock acceleration of 0.50g at the site. The depth to bedrock varies between 6 m (20 ft) to 7.5 m (25 ft) according to test borings conducted at the site.

This section of State Route 1 crosses a landslide complex that is approximately 200 m (656 ft) wide at the roadway level (see Figure 2-4, Landslide Map). Evidence indicates that three slope failures have coalesced to form this slide complex. These landslides are failing on a relatively flat surface, and can be classified as translational debris block slides.

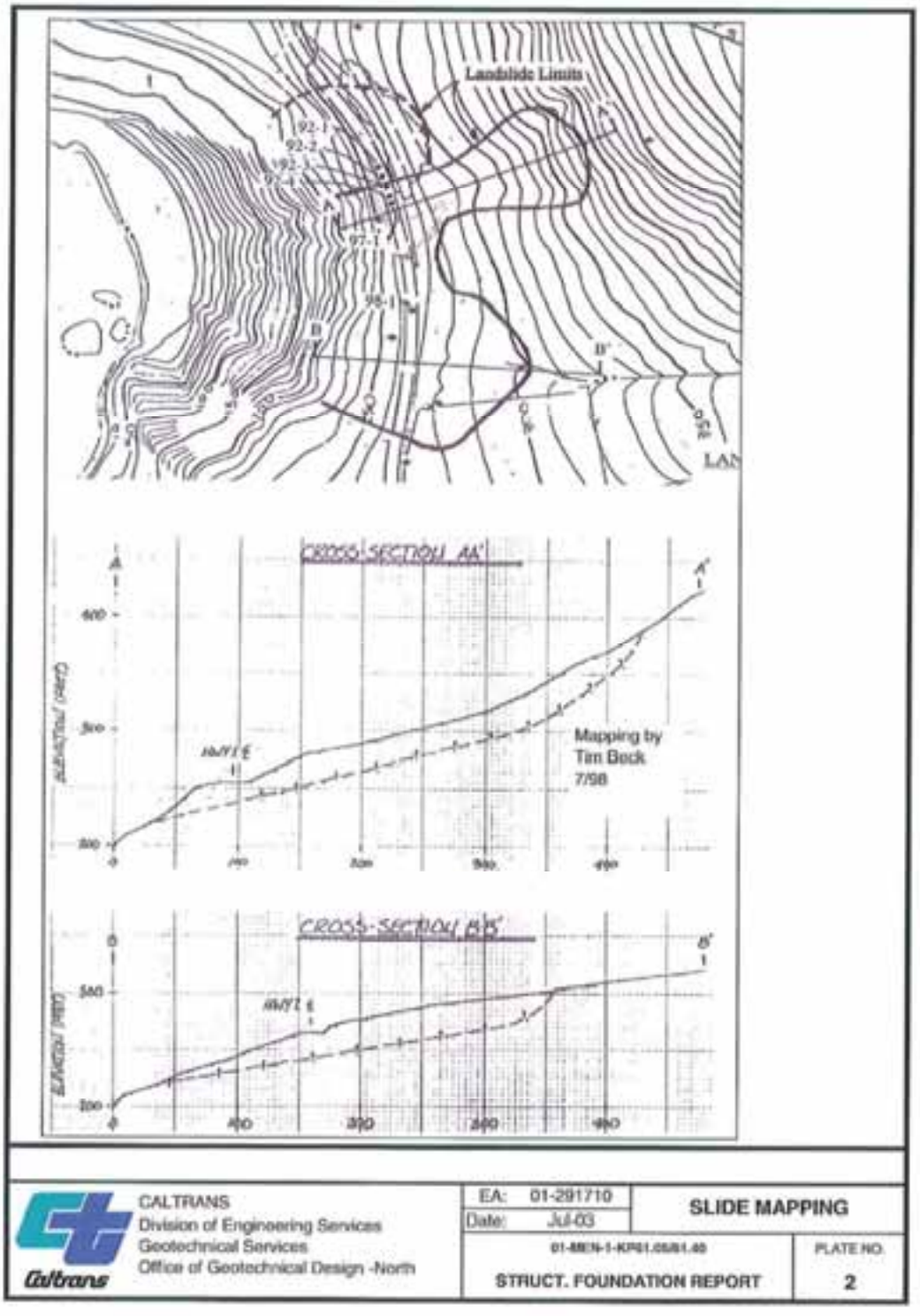
Avoidance, Minimization, and/or Mitigation Measures

Based upon the investigation results, it is recommended that the soldier piles extend a minimum of 10.6 m (35 ft) below the existing ground surface. This would likely result in the piles extending at least 3 m (10 ft) in to the underlying bedrock.

It is further recommended that there be a minimum of two rows of tiebacks for each pile, with a typical inclination of 15 degrees; the minimum length would be 30 m (98 ft) for the top row and 21 m (69 ft) for the lower row. The lagging should extend approximately 7.3 m (24 ft) below the roadway surface.

Because of the granular nature of the upper materials, casing may be needed for the upper 7.6 m (25 ft) of the shafts for the soldier piles.

Figure 2-4 Landslide Map



2.2.3 Hazardous Waste Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of the Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for "cradle to grave" regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act.

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

This proposed project would be constructed in a rural area along State Route 1. An Initial Site Assessment (ISA) determined that the project limits are not listed on the 2003 *Hazardous Waste and Substances Site List,* and all alternatives would be free of hazardous waste issues.

Impacts

The ISA concluded that the only hazardous waste issue would be removal of yellow thermoplastic striping. If existing yellow thermoplastic striping is removed from the pavement surface as a separate operation – such as by grinding or sand blasting the stripe from the surface – it is considered hazardous waste, and safe work practices and disposal would be necessary. If yellow thermoplastic striping is ground up with and deconcentrated by the pavement grindings it is not considered hazardous waste.

Avoidance, Minimization, and/or Mitigation Measures

During removal of the existing pavement, the State's contractor will be required to remove, handle, and dispose of thermoplastic striping in accordance with the recommendations of Caltrans' Office of Environmental Engineering.

2.2.4 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide ($SO_{2)}$.

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals

of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide, nitrogen dioxide, ozone, and particulate matter. California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the Regional Transportation Plan, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the Regional Transportation Plan is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the Regional Transportation Plan, then the proposed project is deemed to meet regional conformity requirements for purposes of the project-level analysis.

Conformity at the project level also requires “hot spot” analysis if an area is in “nonattainment” or “maintenance” for carbon monoxide and/or particulate matter. A region is a “nonattainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas, but have recently met the standard, are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act and California Environmental Quality Act purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in “nonattainment” areas, the project must not cause any increase in the number and severity of violations. If a known carbon monoxide or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

This project is exempt from regional (40 Code Federal Regulations 93.127-128) conformity requirements. Separate listing of the project in the Regional Transportation Plan and Transportation Improvement Program, and their regional conformity analyses, is not necessary. The project would not interfere with timely implementation of Transportation Control Measures identified in the applicable State Implementation Plan and regional conformity analysis.

Impacts

This proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM10, would be the primary short-term construction impact; this dust may be generated during excavation, grading, and/or hauling activities; however, both construction equipment exhaust and fugitive dust would be temporary and transitory in nature, and these impacts are considered minor.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF “Air Pollution Control” and Section 10 “Dust Control” require the contractor to comply with local Air Pollution Control District’s rules, ordinances, and regulations.

2.2.5 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment.

Federal law (23 CFR 772) requires detailed traffic noise analyses for certain highway improvement projects classified as “Type 1 Projects”; it defines these as “*proposed Federal or Federal-aid highway projects for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes*

either the horizontal or vertical alignment, or increases the number of through traffic lanes."

Affected Environment

This is not a capacity-increasing project. The proposed tieback wall project does not meet the definition of a Type 1 Project, therefore no traffic noise analysis is required.

Impacts

During construction, noise would be generated by the contractor's equipment and vehicles. Periodic road closures may be necessary during construction, and these closures may occur at night. Noise from construction activities is unavoidable; however, it is a temporary noise source.

Avoidance, Minimization, and/or Noise Abatement

Caltrans will require the construction contractor (under Caltrans Standard Specifications, Section 7-1.01 I, "Sound Control Requirements") to comply with all local sound control and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the contract. In addition, each internal combustion engine used for any purpose on the job, or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer.

2.3 Biological Environment

2.3.1 Natural Communities

Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Affected Environment

The project site consists of a coastal bluff area vegetated with northern coastal scrub. Northern coastal scrub communities grow in discontinuous patches in a thin band near the coast stretching from about Big Sur northward. These communities are generally found on coastal slopes and elevated marine terraces and grow in a variety of soils,

including old, stabilized dunes. The dominant shrub species are mostly 1-2 m (3.3 –6.6 ft) tall evergreens, with coyote brush (*Baccharis pilularis*) or thimble berry (*Rubrus parviflorus*) being most common.

The vegetation west of the highway is more characteristic of northern coastal scrub community than east of the highway, an area that has been disturbed by cattle grazing; however, the eastern portion of the project does contain vegetation characteristic of northern coastal scrub. Drainage of slopes to the east is limited to surface flow with the exception of two natural drainages. These drainages are conveyed beneath the highway through 600 mm (24 in) diameter culverts at KP 61.12 (PM 37.98) and KP 61.22 (PM 38.04). At KP 61.12 (PM 37.98) a natural gully conveys storm runoff from the coastal range. The top of the gully is vegetated with upland vegetation. The drainage at KP 61.22 (PM 38.04) conveys only storm runoff as well. These drainages are characteristic of coastal bluffs that contain landslide complexes, and are not classified as streams.

There are several Monterey pine trees at the northeast limits of the project, and these are not habitat for endangered species

Impacts

There will be minimal impacts to the U.S. Army Corps of Engineers (USACE) drainages from the replacement of one 600 mm (24 in) culvert at KP 61.12 (PM 37.98), the extension of a culvert at KP 61.22 (PM 38.04), and increasing the diameter of the existing culvert at KP 61.12 (PM 37.98). No threatened or endangered species or habitat for threatened or endangered species will be affected by the project.

Avoidance, Minimization, and/or Mitigation Measures

To reduce impacts to the project site the cut slope was steepened. The cut into the slope is necessary to provide a traveled way to the public during construction. A revised traffic management plan to reduce the shoulder and the width of the lanes was adopted. This entails restricting the permit loads during the period construction would require a crane.

The culvert work will occur during the dry season, when the drainages are not conveying flow.

Storm water erosion control BMP’s will be implemented to avoid transfer of sediment from exposed soil areas during construction.

In order to avoid introducing non-native or invasive plants to the project area, the contractor will be required to wash their vehicles prior to use on site.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 United States Code 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is implemented by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game and the Regional Water Quality Control Boards. In certain circumstances, the California Coastal Commission (CCC) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California

Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The California Department of Fish and Game's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the U.S. Army Corps of Engineers (USACE) may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Boards also issue water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

No wetlands will be affected by the project because field surveys verified there are no wetlands within the project limits. Drainages within the project area convey only storm run off and do not provide hydraulic conditions to support wetland habitat.

Impacts

There would be no CCC-defined coastal wetlands or USACE-defined wetlands affected by this project.

Avoidance, Minimization, and/or Mitigation Measures

There are no wetlands in the project limits, therefore, no minimization or mitigation measures are necessary.

Caltrans will specify that work within waters of the U.S. will occur when the drainages are not conveying flow.

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and California Department of Fish and Game share regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are

afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see the Threatened and Endangered Species, Section 2.3.5, in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including California Department of Fish and Game fully-protected species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at United States Code 16, Section 1531, et. seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code, Section 2050, et. seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

Northern coast scrub has the potential for several sensitive plant species; however, plant surveys conducted in the field between 2002 and 2006 did not observe any sensitive plant species in the project limits.

Impacts

The project would require vegetation removal and the slopes to be “cut” in order to construct the tieback wall and to convey traffic during construction. Impacts to the cut slope would not result in substantial reduction of northern coastal scrub.

Avoidance, Minimization, and/or Mitigation Measures

To reduce impacts to the project site the cut slope has been steepened. The cut into the slope is necessary to provide a traveled way to the public during construction. A revised traffic management plan to reduce the shoulder and the width of the lane was adopted. This would entail restricting the permitted weight loads during the construction period when work would require a crane to be present.

Table 1: Project Study Area Sensitive Species Table

Scientific Name (Common Name)	Status[1]	Specific Habitat Present/Absent	Comments
Lilium maritum (Maritime Lily)	CNPS 1B	Coastal bluff scrub Marshes, swamps	Not observed.
Lycaeides argyrognomon lotis (Lotis Blue Butterfly)	Fed: E	Coastal bogs	Not observed since 1983. Known from only few sites in Mendocino County.
Speyeria zerene behrensii (Behren's Silverspot Butterfly)	Fed: E	Coastal terrace prairie	Known from one site near Point Arena in southern Mendocino County.
Strix occidentalis caurina (Northern spotted owl)	Fed: T	Old-growth forest w/ developed stratification	Not observed. Suitable habitat is not present at project site.
Brachyramphus marmoratus (Marbled murrelet)	Fed: T State: E	Old-growth and mixed stands of mature and old-growth coniferous forests	Not observed. Suitable habitat is not present at project site.
Agrostis blasdalei (Blasdale's bent grass)	CNPS 1B	Coastal scrub, bluffs, and prairies	Not observed.
Campanula californica (Swamp harebell)	CNPS 1B	Marshes, bogs	No habitat present.
Castilleja mendocinensis (Mendocino paintbrush)	CNPS 1B	Coastal scrub, prairies, and bluffs	Not observed.
Sidalcea calycosa ssp. (Point Reyes checkerbloom)	CNPS 1B	Coastal, salt marsh	Not observed.
Pinus contorta ssp. Bolanderi (Boolanders beach pine)	CNPS 1 B	Closed cone forests	Not observed.

[1] Status: T: Threatened and E: Endangered

2.3.4 Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

The project is proposed within the northern coastal scrub community.

Impacts

Heavy construction equipment brought to the site by the contractor could have mud-encased plant seeds in the tracks and/or undercarriage. This could introduce species from other locations.

Avoidance, Minimization, and/or Mitigation Measures

In order to avoid introducing non-native or invasive plants to the project area, the contractor will be required to wash their vehicles prior to use on site utilizing Caltrans "Vehicle and Equipment Cleaning" BMP, NS-8.

2.4 Construction Impacts

Affected Environment

The existing highway was constructed on a combination of cut slopes (east side) and fill slopes (west side). A metal beam guardrail (MBGR) is located along the west side of the highway, and a wooden crib wall is located beneath the highway. A construction staging area would be located on private property, northwest of the wall location, and a temporary construction access would connect the staging area to the construction bench in front of the wall. Existing vegetation coverage is mostly coastal grasslands with some shrubs adjacent to the highway. Contractor activity on this site would impact most existing vegetation. The total disturbed area for all construction, access and staging would be approximately 1.2 ha (3 ac).

Impacts

This description should be considered a typical construction scenario, and specific details could vary due to construction methods proposed by the Contractor. It is expected that impacts would be equal to, or less than this description.

Equipment used during construction would include cranes, excavators, track hoes, front-end loaders, bulldozers, drilling and pile driving rigs, concrete trucks and pumping units, and miscellaneous other construction equipment.

The first order of work would consist of widening to the east in order to allow for the construction area and the one-way traffic control (See Figure 2-1, Stage Construction). Approximately 3,400 cubic meters (4,447 cubic yards) of material would be cut at a variable slope of 1:1.5 to 1:1. Surplus material would be disposed of at a permitted disposal site. Erosion control would be placed on the cut slope, prior to the first winter season.

After completion of the cut the roadway section would be widened by approximately 2.63 m (8.6 ft) toward the east to accommodate the construction area and one-way traffic control. K-rail would be placed to separate traffic from the work area. A temporary signal would be installed to provide one-way reversed traffic control.

A truck-mounted or track-mounted drill rig would be used to place Cast In Drilled Hole (CIDH) piles from the top of the road. H-beam piles would be placed into the shafts by a crane and supported in place as concrete is poured into the hole. Once the CIDH piles are completed, wood lagging would be placed between the flanges of adjacent piles.

As the lagging is placed, soil at the front face of the wall would be removed and a bench would be formed in front of the wall. The bench would be at an elevation of approximately 1 m (3.3 ft) below the top level of tiebacks. When completed, the bench area would be used for horizontal drilling equipment access.

A horizontal drill would drill holes from the front face of the wall, 200 m (656 ft) to the east. Pre-fabricated tieback anchors would be installed into each hole and grouted in place. Tiebacks would be post-tensioned and locked-off to the anchor block/whaler. Due to the steepness of the terrain, there may not be enough room to form an adequate bench near the northerly culvert; therefore, the horizontal drill would likely be suspended from a crane located on the roadway surface to drill approximately twelve

tiebacks. It is anticipated that installing, grouting and tensioning the tieback can be completed with one-way traffic control. After each level of tiebacks is completed, the operation would be repeated until all levels of tiebacks are completed.

After completing the structural components of the wall, embankment would be placed in front of the wall at a slope of 1:2; the temporary access to the staging area would be re-graded to a natural contour; and the see-through barrier would be placed on top of the wall. Upon completion of the barrier, the temporary K-rail and signal system would be removed; the final roadway configuration, paving, and delineation would then be completed; and all disturbed areas would be hydro-seeded with erosion control and revegetated.

There would be two locations providing access for equipment to construct the proposed retaining wall. The southern access location connects to the highway near the southwest project limit, and provides access to the southern portion of the tieback wall. The northern access would be accessible from the proposed staging area at the northwest project limit, and provides access to the northern end of the tieback wall. The two temporary access ways would require the removal of existing vegetation.

Avoidance, Minimization, and/or Mitigation Measures

The temporary construction access ways would be recontoured to a natural contour and revegetated with native shrubs and grasses.

All construction equipment and material would be removed from the temporary staging area at the end of the construction season.

The staging area would be recontoured and revegetated.

2.5 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from additional residential development, new visitor-serving facilities, timber harvesting, offshore oil

and gas development, and highway development, as well as from agricultural conversion of existing land uses to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts such as changes in community character, traffic patterns, housing availability, and employment.

Section 15130 of the California Environmental Quality Act Guidelines describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under the California Environmental Quality Act, can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality regulations.

Affected Environment

The proposed project would be constructed along the existing highway alignment in a rural area of the Mendocino coast.

Impacts

There have been two recent highway projects and one planned project within 3 km (1.9 mi) of the project limits. The recent projects were limited to storm damage repair necessary to maintain the roadway. One location was a drainage repair approximately 150 m (492 ft) north of the project limits. The other was an emergency slip out repair located approximately 1000 m (0.62 mi) north of the project limits. This location has been programmed as a new, permanent project, although the type of repair has not been determined at this time.

Caltrans is currently designing a project that would make improvements to the Pacific Coast Bike Route at various locations between KP 49.08 to KP 64.85 (PM 30.5 to PM 40.3). The project would add 1.2 m (4 ft) paved shoulders to Route 1 at 12 segments of varying length. The shoulders would be located only on the southbound side of the highway because the heaviest amount of bicycle traffic is southbound. If any wetlands or environmentally sensitive species are found in any of the proposed segments, then that location would be dropped from consideration.

The Greenwood Creek Bridge is proposed for replacement on the south side of Elk at KP 53.75 to KP 54.56 (PM 33.4 to PM 33.9). This project is being redesigned, and its environmental impacts will be reviewed and disclosed in a separate environmental document. The environmental and design issues are very different between the bridge replacement and this proposed timber lagging, tieback wall. A viaduct proposal would be a project that could be considered comparable to a new bridge, but, as discussed in section 1.4.4, construction of a viaduct has been rejected.

Avoidance, Minimization, and/or Mitigation Measures

No cumulative impacts would result from the proposed project; therefore no avoidance, minimization, or mitigation measures are necessary.

Chapter 3 Coordination and Consultation

A public Open House was held at the Greenwood Community Center in Elk on May 24, 2006. In addition, the following agencies and organizations have been contacted regarding this project:

County of Mendocino, Department of Planning and Building Services

Bo-Cah-Ama Council

California Department of Fish and Game

North Coast Regional Water Quality Control Board

Northwest Information Center of the California Historical Resources Information System

U.S. Fish and Wildlife Service

Bureau of Land Management

California Coastal Commission

State Clearinghouse

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Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

The California Environmental Quality Act requires that environmental documents determine significant or potentially significant impacts. In many cases, background studies performed in connection with the project indicate no impacts. A mark in the “no impact” column of the checklist reflects this determination. Any needed explanation of that determination is provided at the beginning of Chapter 2.

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	X	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	X	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	X
AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentration?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X
BIOLOGICAL RESOURCES - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
COMMUNITY RESOURCES - Would the project:				
a) Cause disruption of orderly planned development?				X
b) Be inconsistent with a Coastal Zone Management Plan?				X
c) Affect lifestyles or neighborhood character or stability?				X
d) Physically divide an established community?				X
e) Affect minority, low-income, elderly, disabled, transit-dependent, or other specific interest group?				X
f) Affect employment, industry, or commerce, or require the displacement of businesses or farms?				X
g) Affect property values or the local tax base?				X
h) Affect any community facilities (including medical, educational, scientific, or religious institutions, ceremonial sites, or sacred shrines?				X
i) Result in alterations to waterborne, rail, or air traffic?				X
j) Support large commercial or residential development?				X
k) Affect wild or scenic rivers or natural landmarks?				X
l) Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours, and temporary access, etc.)?				X
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	X
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	X
GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	X
ii) Strong seismic ground shaking?	☐	☐	X	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	X
iv) Landslides?	☐	☐	X	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	X
HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	☐	☐	☐	X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	☐	☐	☐	X
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f) Otherwise substantially degrade water quality?	☐	☐	☐	X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	X
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	X
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	X
LAND USE AND PLANNING - Would the project:				
a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan,	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
b) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X
MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	X
NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
POPULATION AND HOUSING - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
PUBLIC SERVICES -				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X
RECREATION -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X
b) Does the project include recreational facilities or				

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	X
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X
c) Result in a change in air traffic patters, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incomplete uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	X
UTILITY AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
are new or expanded entitlements needed?				
e) Result in determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X
MANDATORY FINDINGS OF SIGNIFICANCE -				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, or cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	X
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086

Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

"Caltrans improves mobility across California"

Appendix C Minimization and/or Mitigation Summary

Use of see-through bridge railing or MBGR to avoid visual impacts.

Any drainage pipe visible from the Pacific Ocean would be colored.

Embankment slopes below the retaining wall would be revegetated with native plants.

Revegetation of the slope east of the roadway where Monterey pine would be removed.

The temporary access ways would be recontoured to a natural contour and revegetated with native shrubs and grasses.

The temporary construction staging area would be recontoured to previous conditions and revegetated with native species.

The contractor prepared SWPPP would include BMPs for preventing storm water impacts during excavation, and BMPs to prevent erosion at all new inlets to existing drainage facilities.

Disturbed soil areas not part of the operational roadway and wall would be revegetated as part of the proposed project.

During removal of the existing pavement, the State's contractor would be required to remove, handle, and dispose of thermoplastic striping in accordance with the recommendations of Caltrans' Office of Environmental Engineering.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with local Air Pollution Control District's rules, ordinances, and regulations.

Caltrans would require the construction contractor (under Caltrans Standard Specifications, Section 7-1.01 I, "Sound Control Requirements") to comply with all local sound control and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the contract. In addition, each internal combustion

engine used for any purpose on the job, or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer.

As directed by Caltrans, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

The culvert work would occur during the dry season when the drainages are not conveying flow.

Storm water erosion control BMP's would be implemented to avoid transfer of sediment from exposed soil areas during construction.

In order to avoid introducing non-native or invasive plants to the project area, the contractor would be required to wash their vehicles prior to use on site utilizing Caltrans "Vehicle and Equipment Cleaning" BMP, NS-8.

Appendix D List of Technical Studies that are Bound Separately

Natural Environment Study

Historical Property Survey Report

- Historic Resource Evaluation Report
- Historic Architectural Survey Report

Hazardous Waste Report: Initial Site Assessment

Visual Impact Assessment

Air Quality, Noise and Energy Memo

Geotechnical Foundation Report

Storm Water Data Report

Appendix E State Historic Preservation Officer Concurrence Letter

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

6 April 2006

Reply To: FHWA060403A

Gary Berrigan, Chief (Acting)
Department of Transportation, District 1
1656 Union Street
Eureka, CA 95501

Re: Determinations of National Register of Historic Places Eligibility for the Tieback Retaining Wall Project, 01-MEN-101, KP 61.05/61.40, Elk, Mendocino County, CA

Dear Mr. Berrigan:

Thank you for consulting with me about the subject undertaking in accordance with the 1 January 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The California Department of Transportation (Caltrans) requests in its letter of 29 March 2006, my concurrence pursuant to Stipulation VIII.C.5 of the PA, that one property are not eligible for inclusion in the National Register of Historic Places (NRHP). At this time, I am able to concur with the determination that the property at 2401 S. Highway 1 is **not eligible** for inclusion in the NRHP.

As stated in your letter, this action satisfies Caltrans responsibilities under Stipulation IX.A.2 of the PA, and no further review is required.

If you have any questions, please contact Amanda Blosser of my staff at (916) 653-9010 or e-mail at ablosser@parks.ca.gov.

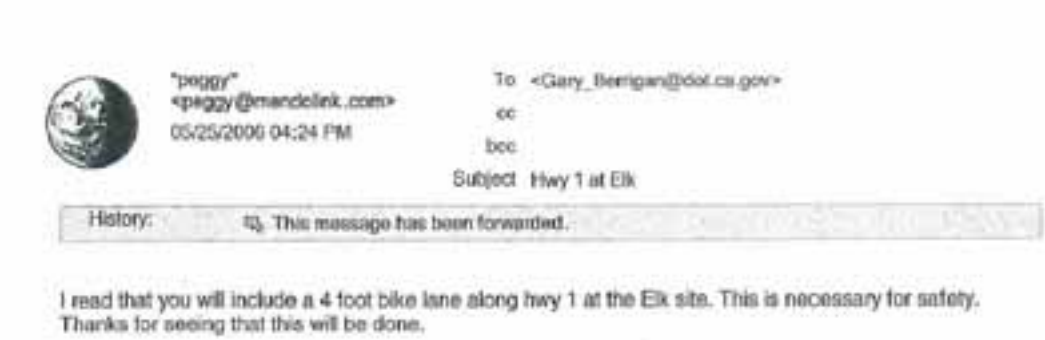
Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:ab

Appendix F Comments Received and Response to Comments

1) Comment from <peggy@mendolink.com>



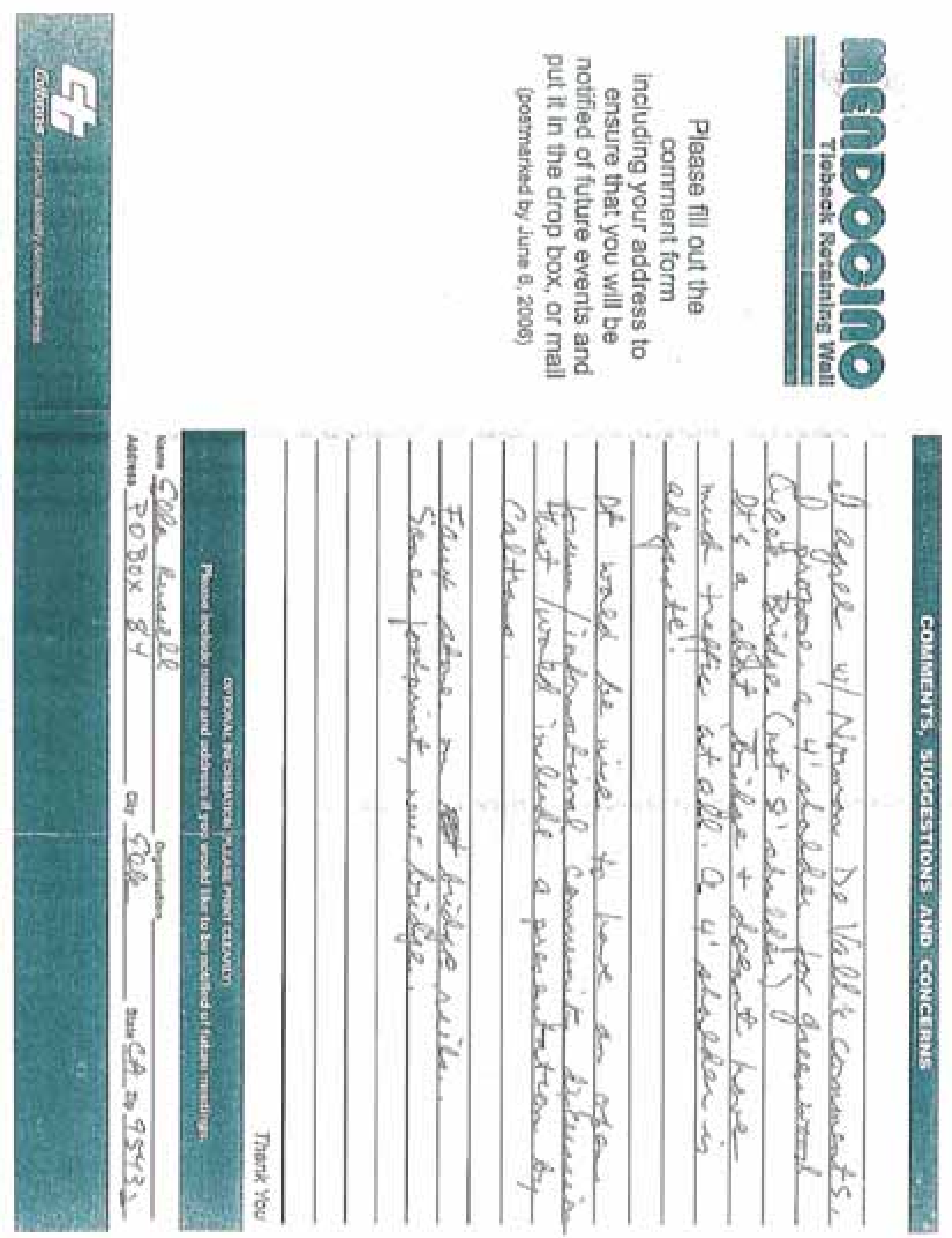
"peggy"
<peggy@mendolink.com>
05/25/2006 04:24 PM

To <Gary_Berrigan@dot.ca.gov>
cc
bcc
Subject Hwy 1 at Elk

History: This message has been forwarded.

I read that you will include a 4 foot bike lane along hwy 1 at the Elk site. This is necessary for safety. Thanks for seeing that this will be done.

2) Comments from Ella Russell; Patty Sarb; Gemma Barsby



MENDOCINO
Tieback Retaining Wall

Please fill out the comment form including your address to ensure that you will be notified of future events and put it in the drop box, or mail (postmarked by June 6, 2006)

COMMENTS, SUGGESTIONS AND CONCERNS

I agree w/ Norman De Vall's comments.
I propose a 4' shoulder for Greenwood Creek Bridge (not 8' shoulder).
It's a short bridge + doesn't have much traffic at all. A 4' shoulder is adequate!

It would be wise to have an open forum/informational community discussion that would include a presentation by Caltrans.

Faux stone on bridge rails.
Same footprint, new bridge.

Thank You

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY)
Please include name and address if you would like to be notified of future meetings.

Name: Ella Russell Organization:
Address: PO Box 84 City: Elk State: CA Zip: 95432

Caltrans

MENDOCINO
Tieback Retaining Wall

Please fill out the comment form including your address to ensure that you will be notified of future events and put it in the drop box, or mail (postmarked by June 6, 2006)

COMMENTS, SUGGESTIONS AND CONCERNS

Assure that structural engineering aspect of Greenwood bridge continue to be addressed and revised accordingly since the previous meeting last fall & winter. Very important, of course, equally important is aesthetic features of the replacement bridge. I am in the tourism business, which is about all this area has left, and my concerns and interests lie in making sure the natural beauty of the area is preserved – it is all we have and that is why people come here. To be blunt, in the past it seems that new bridges that are built are one ugly design only and the Greenwood bridge needs to be better (and any other bridges replaced along the northern coast).

The bicycle path project sounds great – first I've heard of it but appreciate the advance notice so I can let the inn guests know and, especially, the bicycle tours!

Thank You

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY)
Please include name and address if you would like to be notified of future meetings.

Name: PATTY SAAB Organization: GRIFFIN HOUSE INN & BRIDGET DENNIS PUB
Address: P.O. BOX 190 City: ELK State: CA Zip: 95432

Caltrans

MENDOCINO
Tieback Retaining Wall

Please fill out the comment form including your address to ensure that you will be notified of future events and put it in the drop box, or mail
(postmarked by June 6, 2008)

COMMENTS, SUGGESTIONS AND CONCERNS

Cal trans NEEDS to plan a bridge which is in keeping the Small Slow Rural & Scenic Style of the area. The pre existing bridge should be renovated or re created to be safe. Its location & grating are the most acceptable for this area. A design which slows traffic would be beneficial to the down-town residents.
I commute south weekdays to work & would find it acceptable to have a one lane at a time replacement, so that the original foot print could be used. However, I hope the style of bridge rails is aesthetic to a community supported by tourist trade. We make our livings with the beauty there. Faux Stone would be nice. NO Bau Haus more charming village. 4' shoulders! Thank You

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY)
Please include name and address if you would like to be notified of future meetings.

Name Gemma Barsby Organization
Address PO Col City EK State Zip 95432

Caltrans Improves Mobility Across California

3) Comment from Norman de Vall

MENDOCINO
Tieback Retaining Wall

Please fill out the comment form including your address to ensure that you will be notified of future events and put it in the drop box, or mail (postmarked by June 6, 2006)

COMMENTS, SUGGESTIONS AND CONCERNS

- Illegal Font - Not Legible - Mailed Could not read.
- Incomplete letter. Did not mention "other projects".
- Postings - Not there - Not at Post Office in Elk was at Albion.
- List Serve - Communities all over Mendocino web site.
- Too short of notice. 48 hrs. by time they get letter.
  Not my job - CT & Contractors/Subs not obeying speed limits.
- Signage. - NB different than SB Greenwood Br. Reduce Speed would help cond of bridge. Reduce speed to 30 mph so. of bridge. Example of Big Sur culture - slowing vehicles.
- DOT/BLM - National Monuments Clintons Coastal National Monuments Protection of beautiful coast.

Thank You

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY)
Please include name and address if you would like to be notified of future meetings.

Name: Norman DeVall   Organization: Notes Taken by CL Graber
Address: ____ City: ____ State: ____ Zip: ____

Caltrans

MENDOCINO
Tieback Retaining Wall

Please fill out the comment form including your address to ensure that you will be notified of future events and put it in the drop box, or mail (postmarked by June 6, 2006)

Additional Comments Dina + Erik + Ledta + Chris G. heard these

COMMENTS, SUGGESTIONS AND CONCERNS

* Bridge Rail Type 80 not liked. Prefer MBGR with shift to East. Courtney agreed (Design thought Alt. 3 may work)
* DOUBLE STRIPING ALONG RTE 1 IS NOT SAFE. PASSING SHOULD BE ALLOWED WHERE SIGHT DISTANCE IS NOT AN ISSUE TO AVOID VEHICLES PASSING (ILLEGALLY) AT THE WRONG PLACES.

Thank You

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY)

Please include name and address if you would like to be notified of future meetings.

Name: Norman deVall Organization: ______

Address: ______ City: ______ State: ____ Zip: ____

Caltrans Improving Mobility Across California

4) Comment from Lisa Kristofferson via Don Shanley

Dear Gary Berrigan, Dina Noel and CalTrans:

We are the owners of the large ranch and coastal lands pictured on "Tie Back Retaining Wall Initial Study." Several years ago, Lisa Spellenberg was communicating with us regarding this proposal, and it was all very amicable until the project got postponed.

Approximately 7 -8 years ago we allowed CalTrans to stage another large construction project using the Cameron Road portion of our property, with no complaints.

We have since seen the disregard CalTrans has shown for our property and short of filing a lawsuit, have tried to remedy and protect our interests. Caltrans has been illegally "dumping their extra asphalt" (per phone message left on caretaker's voicemail) to widen an area of the road, south of the Dearing Homestead (which is of *HUGE historic, scenic and cultural significance to the area*). This has caused a private nuisance where large trucks and RV's camp over night, leaving rubbish, *human waste and toilet paper behind*. This has directly interfered with our use and enjoyment of our property, and the actions of Caltrans constitutes an illegal trespass on our property. We have never authorized or allowed CalTrans to dump asphalt upon our property. Furthermore, this has created unsafe and unhealthful conditions, as well as diminished the pristine coastal vistas we have worked hard to preserve.

The homestead barns may look old and weathered, but they have been shored up from the inside out to preserve that look at considerable expense. Tourists from as far as Japan and Russia take photos of this last piece of the "wild, untamed west coast."

Getty Images recently used this scenic route to photograph Highway 1 and sold their image to Costco (without our permission or compensation to us), to sell tires. (See attached photo). The movie "Karate Kid III" was filmed on the property, with "Devil's Basin" being predominately featured. This stretch is a precious resource- redwood split rails fit; steel and concrete do not. We will have two representatives present at the May 24th meeting: Don Shanley and Mike Biaggi.

Although we do not want to file a lawsuit against CalTrans, we wish to preserve our property rights. California Penal Code §374.3(a) states:

"It is unlawful to place, deposit, or dump or caused to be placed, deposited, or dumped, any rocks, concrete, asphalts, or dirt in or on any private highway road, including any portion of the right way thereof, or any private property, without the consent of the owner..." Consent has never been given to Caltrans to dump asphalt or debris on our property.

Page 2 of 3

Furthermore, we do not want any trees to be REMOVED. We will only approve the relocation of the trees to a designated area of our choice. Mature trees are a precious resource and contribute to the scenery and we hope CalTrans will begin to show some degree of respect for the unique beauty of this stretch. Pursuant to California Streets and Highway Codes sections 22080 - 22082, we intend to file objections to cutting any trees down.

We demand that CalTrans immediately stop the illegal dumping of asphalt at the South coastal end of our ranch without our permission or any permits from California Coastal Commission, or other appropriate agencies. Every attention to detail must be made as to the aesthetics of this historic and highly scenic route.

Thank you!

Lisa Kristofferson for The Kristofferson Family Trust

Don Shanley
Landscape Contractor
California License #[illegible]

Tel: 707-[illegible]-2100
Fax: 707-[illegible]-2200
email: shanley@pacific.net

PROSEED

Landscape Design & Construction
Erosion Control & Revegetation · Hydroseeding & Straw Mulching
967 Highway 128, Philo, CA 95466

5) Letter from State Clearinghouse

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

June 7, 2006

Gary Berrigan
Department of Transportation, District 1
1656 Union Street
Eureka, CA 95501

Subject: Tieback Retaining Wall
SCH#: 2006052057

Dear Gary Berrigan:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 6, 2006, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

6) Comment from California Department of Fish and Game

State of California

RECEIVED
MAY 2 2 2006
STATE CLEARING HOUSE

Memorandum

To : Mr. Gary Berrigan
California Department of Transportation
1656 Union Street
Eureka CA 95501

Date: May 16, 2006

Clear 6-6-06 e

From : Robert W. Floerke, Regional Manager
Department of Fish and Game - Central Coast Region, Post Office Box 47, Yountville, California 94599

Subject : Tieback Retaining Wall, Elk, Mendocino County, SCH 2006052057

The Department of Fish and Game (DFG) has reviewed the document for the subject project. Please be advised this project may result in changes to fish and wildlife resources as described in the California Code of Regulations, Title 14, Section 753.5(d)(1)(A)-(G). Therefore, a de minimis determination is not appropriate, and an environmental filing fee as required under Fish and Game Code Section 711.4(d) should be paid on or before filing of the Notice of Determination for this project.

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of SAAs is subject to the California Environmental Quality Act (CEQA). DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the SAA notification process, please access our website at www.dfg.ca.gov/1600; or to request a notification package, contact the Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact Ms. Corinne Gray, Environmental Scientist, at (707) 944-5526, or Mr. Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

cc: State Clearinghouse

7) Comment from Jeff Watts

Jeff Watts
<mendoman@mcn.org>
06/02/2006 10:32 AM

To gary_berrigan@dot.ca.gov
cc ico@mendonoma.com
bcc
Subject Public Comment: Tie-back Wall MP 37.8-38.2 Coast Highway One

Dear Mr. Berrigan

Please include my concerns and comments into the subject record.

Tie-back walls must be architecturally designed to mitigate their stark and harsh appearances. Recognizing the state of the art tie-back structural design of wide flange soldier beams, waler beams and timber lagging, necessary for practical and economic construction, every effort should be made to minimize the height of the exposed wall.

Between Jenner and Fort Ross in Sonoma County a number of such tie-back walls stand out as one traverses the highway's vertical and horizontal curves. The largest of these is referred to by some as the "Caltrans Birthday Cake". One would hope that Mendocino will not make similar esthetic blunders.

Caltrans is requested to provide natural landscaping with trees and shrubs together with sensitive choice of exposed material colors. It should further investigate integrating concrete crib-wall type lagging with gaps to accommodate wall and creeper foliage such as that in downtown Jenner.

Finally, just because a crib-wall structure cannot be observed from Highway One is no reason to ignore its appearance as hikers, beachgoers, fishermen and cruise ship passengers do observe them. If this concern is not addressed one may one day expect to see a "string of battlements" stretching from Jenner to Fort Bragg.

Your earnest support attention and action is expected.

Jeff Watts
46300 Iversen Drive
PO Box 1718
Gualala, CA 95445-1718

cc: ICO Julie Verran

8) Comment from California Coastal Commission

CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
710 E STREET • SUITE 200
EUREKA, CA 95501-1865
VOICE (707) 445-7833
FACSIMILE (707) 445-7877

MAILING ADDRESS:
P. O. BOX 4908
EUREKA, CA 95502-4908

June 6, 2006

Mr. Gary Berrigan
Chief, Environmental Management E2
California Department of Transportation
Post Office Box 3700
Eureka, CA 95502-3700

RE: CEQA Initial Study & Proposed Negative Declaration

Dear Mr. Berrigan:

The North Coast District Office received an invitation to a public hearing concerning a project to "reconstruct and stabilize the roadway along Route 1, 2.1 miles north of the community of Elk," dated May 15, 2006 on May 17, 2006, with a copy of the referenced "Initial Study and Proposed Mitigated Negative Declaration" (EA 01-291710). The document indicates that comments should be submitted by June 6, 2006 (today).

The preparation of numerous staff reports for other projects that Caltrans has urgently requested us to place on the Commission's June agenda has occupied staff completely, and so we were unable to attend the public meeting in Elk last month. We have only turned to the Initial Study today, so our comments (attached) are very preliminary.

We note that the North Coast Commission staff meets regularly with the District 1 staff to "preview" projects that will be under review during the coming year, but we do not recall hearing of this project among those mentioned by Caltrans during the last coordination meeting, and our agency is not listed among the agencies and organizations Caltrans has contacted in the past regarding this project (Initial Study, page 56). Perhaps the project has arisen suddenly, but in any case Caltrans must obtain a coastal development permit from Mendocino County for this project, and that permit will be appealable to the Coastal Commission. For this reason, we think it would be beneficial for Caltrans to meet with Commission staff and Mendocino County staff, together, before submitting the pertinent application to the County. If you agree that such a meeting would be helpful, please call me, or Robert Merrill, District Manager, at 445-7833 to discuss possible dates/times.

We look forward to discussing this project further with you.

Truly yours,

Melanie Faust

Melanie Faust
Senior Coastal Planner

Proposed project description/alternatives/visual & cumulative impacts/LCP policy consistency

All three alternatives presently under consideration appear to include the same cut slope/retaining wall treatment east of the highway. We note that this type of development, and the policy issues it raises with regard to the Mendocino County LCP (particularly visual, character, landform alteration), was discussed in great detail in the staff report for Greenwood Creek Bridge prepared in 2005. That report is still available on the Commission's website via an active link (September 2005 agenda) for your convenient reference. See particularly the discussion of policies related to visual impacts, including the removal of native vegetation, landform alteration, and the construction of vertical retaining walls (or the visual equivalents of these). The "Cumulative Impacts" section of the Initial Study, commencing on page 52, lists various cumulative impacts to resources in the project area that may result from past, present, and *reasonably foreseeable future actions*, combined with the potential impacts of this proposed project. Page 52 of the Initial Study (IS) states:

> "...Cumulative impacts to resources in the project area may result from additional residential development, new visitor-serving facilities, timber harvesting, offshore oil and gas development, and highway development, as well as from agricultural conversion of existing land uses to more intensive types of agricultural cultivation. These land uses can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts such as changes in community character, traffic patterns, housing availability, and employment."

The mention of community character touches on visual impacts, but the Coastal Act policies such as 30251 that are incorporated into the certified Mendocino County LCP, and the more specific policies of Section 3.5 of the LCP, address the need to protect the character of Highway 1 in scenic rural areas, as well as the character of specific communities (such as Elk), and the overall scenic beauty of the coastal highway corridor. This stretch of Highway 1 also contains the Coastal Trail. It is important for Caltrans to consider the cumulative effects of this project together with those that will arise in conjunction with the pending Greenwood Creek Bridge replacement, which is a reasonably foreseeable future action, and would be located less than five miles south of the subject project, at the other end of the village of Elk. The public comments offered to the Commission, as well as the comments of Commissioners themselves in considering the Greenwood Creek Bridge project during the public hearing in September 2005, did not favor the construction of artificial retaining walls such as the one proposed on the east side of the highway for that project. It is not clear why the IS limited the cumulative impacts review to "two recent highway projects and one planned project within 1.9 miles of the project limits" and excluded the Greenwood Creek Bridge, which is the most directly parallel to the proposed project in terms of context-sensitive design issues.

To remedy this, we recommend that Caltrans undertake a detailed visual impact analysis which shows the road cuts that would be made and the walls that would then be constructed not only for the various alternatives Caltrans proposes, but also for alternatives that have not been proposed but should be evaluated. These would be the range of options to lay back the slope further on the eastern side such that natural vegetation could be restored over time and the construction of an artificial wall avoided. If there is a technical reason that such an option cannot be considered, that should be clearly explained so that the Commission's staff geologist can further evaluate the situation. Caltrans should also make the geotechnical reports for this project available (we hereby request copies of all of the applicable reports Caltrans has prepared or reviewed in developing the proposed project, so that these can be provided to our technical services staff).

We also would appreciate an analysis of a realignment of the road to move it inland and to thereby avoid reconstruction right at the existing landslide area. Could the slide be better remediated through such an approach? Would the long-term stability of the highway footprint overall be improved as the result of such an approach, even if it proved more expensive? We request that these considerations be more fully addressed in an expanded alternatives analysis. (And, to the extent that financial feasibility affects the screening of alternatives, please include a comparative assessment of the costs and benefits of a full range of alternatives, including those that have perhaps been dismissed prior to completion of the draft IS).

This issue, and the need for a comprehensive alternatives analysis, may make the preparation of an EIR advisable, but whether or not an EIR is prepared, the Commission staff may require the equivalent information to finalize eventual Commission consideration of the proposed project, should the project be appealed to the Commission in the future.

What is being proposed, Type 80 or ST-20 rail? Both are described, but the document appears to vet Type 80 as the proposal, while noting the increased visual permeability of ST-20. Why isn't ST-20 being proposed?

Also, there is mention in the document of providing 4-ft-wide paved shoulders on one side of the highway only, apparently because bicycle traffic is deemed heavier in one direction than another. Caltrans should construct 4-ft.-wide paved shoulders on both sides of any Highway 1 project if consistency with the certified Mendocino County LCP is to be achieved, unless substantial adverse impacts to sensitive coastal resources would result (and this should be shown). It would be inconsistent with the LCP to otherwise limit a project to 4-ft.-wide paved shoulders on one side only. Please clarify whether there is a scenario in which Caltrans is only provisionally proposing 4-ft.-wide shoulders in the subject project, in addition to addressing the reasons that only 4-ft-wide shoulders are acceptable at this location when they were not acceptable on the Greenwood Creek project in areas next to vertical retaining walls.

Public Access

The concerns noted above also related to the relationship of the proposed project with the existing highway footprint, how the project will tie into the existing highway, and how the safety

of bicyclists and pedestrians using the Coastal Trail will be taken into consideration and provided for.

Culverts, hydrology, affected vegetation/habitat

The extensions of culverts should also be more fully described and evaluated. Is any vegetation community presently be supported by the hydrology associated with the culverts as they are presently configured, that would be altered if the project is constructed as presently proposed? An explanation would be helpful.

The Greenwood Creek Bridge project and the associated realignment of the highway that was associated with the then-proposed bridge footprint raised another issue: Caltrans stated then that paved shoulders adjacent to vertical slopes had to be a minimum of ten feet wide (not counting the paved shoulder on the opposite side of the highway). At one point Caltrans conceptually offered to reduce the proposed ten feet in width for that project down to 8 feet in width to match the paved shoulder Caltrans was seeking on the associated bridge. But a reduction to 4 feet in width adjacent to the vertical wall was deemed unacceptable by the Caltrans geometrics engineer, John Steele. How has Caltrans determined in the present project that 4 feet in paved shoulder width would be acceptable when Caltrans argued that there was no flexibility to reduce the paved shoulder on a project just a few miles south down to 4 feet in width?

Biological Resources

The IS reports that no wetlands (as defined by the Coastal Commission) exist within the project boundaries. Yet the IS notes that "drainages within the project area convey only storm run off and do not provide hydraulic conditions to support wetland habitat." The field data collected should be supplied to Commission staff so that our biologist can evaluate the results. Has CDFG determined whether any permits or Streambed Alteration Agreement or other review will be required for the subject project?

The IS notes on page 48 that Northern coastal scrub has the potential for several sensitive plant species, but states that"

> "... plant surveys conducted in the field between 2002 and 2005 did not observe any sensitive plant species in the project limits."

The document should state which sensitive plant species may be of interest in Northern coastal scrub habitat in the project area, the date and scope of the referenced surveys, and the qualifications of the biologists who performed the surveys. As with the wetland field data, staff would appreciate receiving copies of the botanical surveys referenced in the IS for the review of the Commission's technical staff.

The IS does not mention any other sensitive species that might be adversely affected by the implementation of the construction proposed. What about potential birds, insects, etc., that may

inhabit the affected vegetation or the proposed staging area, seasonally if not all year? Have potential nesting season impacts been considered? Have any surveys for species other than sensitive plants been performed? If so, please provide copies for the review of the Commission's technical staff. The IS notes that several trees will be removed, but dismisses the importance of this impact by noting that they are not habitat for endangered species. That may be true, but depending on the season of removal, they may be utilized by migratory birds.

Geologic stability and erosion control

Caltrans should provide: a) detailed site plan and b) grading plan with daylight lines, both to a planning (not aerial or reduced) scale showing the topographic contour lines, existing vegetation (including all trees within the project boundaries), any temporary roads that would be constructed and the locations of all temporary staging areas. A specific erosion control (short and long term) and revegetation plan should be prepared by a qualified biologist in consultation with a landscape architect familiar with roadside slope rehabilitation that incorporates the use of locally native species visually compatible with existing native species in the project area, and specific performance standards, erosion control measures, etc., to ensure that the interim and long term site disturbance and restoration do not result in the discharge of sediment or an increase in volume or velocity of runoff from the subject site.

Seasonal Restrictions

All temporary and permanent erosion control measures should be fully identified, and the extent of erosion presently associated with culverts and other drainage and stormwater runoff control devices identified. Caltrans should provide the runoff calculations used to develop the present proposal for the consideration of the Commission's water quality staff and others. The IS mentions that project construction will extend for at least two years, but during the dry season only. Caltrans should define the construction window more precisely, as well as any windows to avoid impacts to sensitive species (nesting for example, March 1 to August 31).

Staging

Please explain why construction staging requires three acres of impacted vegetation? That seems excessive, but a breakout of the site use may help to address this.

Conclusion

Please note that further analysis of the proposed project will likely reveal other concerns, but with the limited time Commission staff presently has available, these are the comments we are able to offer by today's deadline. Thank you for the opportunity to review the document and to provide our comments. We look forward to working with Caltrans, and with Mendocino County, to solve problems the draft proposal raises, and to better understand Caltrans' project objectives and constraints.

Caltrans Response To Comments

1) Response to <peggy@mendolink.com>

The project does not include a designated bike lane, however, it does include 4-foot wide shoulders on both sides of the roadway through the project limits.

2) Response to Ella Russell; Patty Sarb; Gemma Barsby; Norman de Vall; Lisa Kristofferson; Don Shanley

Many of the comments from these individuals are not addressed here because they are about other Caltrans projects and activities. Those comments not specific to the Tieback Retaining Wall Project have been forwarded to the respective Project Development Team (PDT) or Caltrans Branch (Greenwood Creek Bridge PDT; Pacific Coast Bike Route Improvement PDT; Project Management; Maintenance and Operations). Comments from these individuals specific to the Tieback Retaining Wall Project are addressed below.

3) Response to Norman de Vall:

Noticing

1. The circulation of the Initial Study and Proposed Mitigated Negative Declaration for public review and comment was conducted in conformance with CEQA and the CEQA Guidelines.

DOI/BLM – Coastal National Monument

2. This comment is in reference to the California Coastal National Monument (CCNM). According to the Bureau of Land Management (BLM), the CCNM was established "…by Presidential Proclamation No.7264 on January 11, 2000, under the discretionary authority given to the President of the United States by Section 2 of the Antiquities Act of 1906 (34 Stat. 225, 16 U.S.C. 431). Section 2 authorizes the President to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated on the lands owned or controlled by the Government of the United States to be national monuments. These national monuments shall be confined to the smallest area compatible with the proper care and management of the objects to be protected.

"The rocks and islands of the CCNM are 'public lands' owned by the United States and administered by the Secretary of the Interior through the BLM. All of these lands are 'original public domain lands,' lands to which title was vested in the U.S. Government by virtue of its sovereignty. As a result of California being ceded to the United States in 1848 after war with Mexico, all of the lands (including the coastal rocks and islands) within California, except for the Spanish and Mexican land grants and private land claims recognized by the U.S. Government, were original public domain lands. Therefore, all of the CCNM rocks and islands, except for one islet, have been in federal ownership since 1848.

"The purpose of the CCNM, as stated in the Presidential Proclamation, is to protect and manage geologic and biological resources by protecting 'all unappropriated or unreserved lands and interest in the lands owned or controlled by the United States in the form of islands, rocks, exposed reefs, and pinnacles above mean high tide within 12 nautical miles of the shoreline of the State of California'."

In a personal communication with Diane Knox of the BLM Field Office in Ukiah, it was determined that the project location is not within the CCNM. The BLM has no regulatory authority over the project and offered no comments.

Rail Type

3. The selected barrier will be Metal Beam Guardrail (MBGR) with cable bicycle railing. The Type 80 and ST-20 have been removed from consideration.

4) Response to Lisa Kristofferson via Don Shanley

Construction of the project requires a widening to the east, and removal of approximately a third of the stand of Monterey pine (see Section 2.1.4 Visual/Aesthetics). We estimate that one tree 32 inches in diameter will need to be removed, plus an additional eleven trees of 12 inches or less in diameter. The proposal is to remove the minimum amount of trees necessary in order to construct the project, and to revegetate upon project completion (see Appendix C).

5) Response to State Clearinghouse

The letter verifies that Caltrans has complied with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA. No response is required.

6) Response to California Department of Fish and Game

Caltrans conducted an in-depth flora and fauna analysis within the project limits in accordance with the CEQA Guidelines and DFG guidelines and protocols. Section 2.3 and Table 1 discuss and identify the biological environment and sensitive species in the project study area. The Natural Environmental Study (NES) will be forwarded to DFG as requested.

7) Response to Jeff Watts

1. The visible height of the retaining wall will be minimized by the backfilling of soil west of the retaining wall. Only the top 0.2 – 5.1 meters (8 in to 16.7 ft) of wall will be visible from the Pacific Ocean. Visibility will be further reduced by revegetating with trees, shrubs and grasses native to the Mendocino Coast.

2. The project landscape architect has found timber lagging tie back walls to be one of the more aesthetically acceptable retaining walls used on Caltrans projects. Timber lagging retaining walls are used in some of the most scenic highways in the region, including Redwood National Park south of Crescent City. The timber lagging is a natural element with a dark brown color that helps the structure blend into the surrounding natural environment. Metal I-beams are painted a similar color of dark brown so the total structure blends into the natural landscape when viewed from the Pacific Ocean. Concrete retaining walls have a lighter color and smooth texture that contradicts the surrounding topography and landscape. Sculpted soil nail retaining walls have also been constructed on some of the most scenic highways in the state. Although these retaining walls appear to look like rock, the sculpted form of these walls often do not mimic the local geologic form of the immediate region and appear out of place.

3. The backfill of soil west of the retaining wall will create a berm that covers the lower portion of the retaining wall when viewed from the Pacific Ocean. This soil berm will be planted with native trees, shrubs and grasses. When these plants reach mature size, most of the retaining wall will not be visible from the Pacific Ocean due to vegetative screening.

4. The view of the retaining wall from the Pacific Ocean has been a design consideration since the beginning the project, and the potential impacts of the new structure were discussed in section 2.1.4.

8) Response to California Coastal Commission

Cover Letter

1. The *Initial Study and Proposed Mitigated Negative Declaration* also was mailed directly to the North Coast District office on May 4, 2006, and was referred to the Coastal Commission for comment by the State Clearinghouse.

2. The location of the project is entirely within the coastal permit jurisdiction of Mendocino County, and would only reach the Coastal Commission if appealed. We have coordinated with the agency that has primary coastal permit authority for this project. This project was on the Caltrans list of pending projects provided to the Coastal Commission staff in December 2005.

Project description/alternatives/visual and cumulative impacts/LCP consistency

3. The highway segment considered for specific cumulative impacts on this project was for that area between the Navarro River at the Route 1 and Route 128 intersection, south to the community of Elk. This area was considered because of its visual cohesion, rural character, and as a gateway segment that leads to the stunning views of Cuffy's Cove and to the community of Elk. The Greenwood Creek Bridge has been added to the Cumulative Impacts section; however, in regards to sensitive design issues, we disagree that a new bridge replacement is most comparable to a timber lagging, tieback wall. A viaduct proposal would be a project that could be directly comparable to a new bridge, but, as noted in section 1.4.4, construction of a viaduct at this location already has been rejected. Since preparation of the Initial Study, one of the storm damage projects is being programmed as a new, permanent project. This also has been added to the cumulative impacts section.

4. A full Visual Impact Assessment was prepared for the project, which proposes only one timber lagging, tieback wall on the west side of the roadway. No wall is being proposed east of the highway.

5. A retreat of the roadway to the east was considered during development of this project, as noted in section 1.4.4; however, it was determined infeasible due to adverse environmental impacts, including inconsistency with the Local Coastal Program, potential impacts to wetlands, nearly doubling the amount of tree removal, construction of a large cut slope, and acquisition of a substantial amount of additional

right of way from the adjacent property owner. The project has been designed with a primary goal of minimizing environmental impacts. All of the proposed project alternatives would have less than a significant impact, and the project therefore does not require preparation of an EIR. Section 15063 of the CEQA Guidelines states that an initial study is neither intended nor required to include the level of detail included in an EIR. The alternative suggested for further, detailed study by the Coastal Commission staff has the potential for significant environmental impacts, which by statute would require an EIR. However, because this alternative fails to meet the requirements of Section 15126.6(f) of the CEQA Guidelines, it was rejected.

6. Section 2.4.1 noted that, although Type 80 had been proposed for the project, ST-20 and Metal Beam Guardrail (MBGR) should be considered because of their greater see-through characteristics. The document included only photos of the Type 80 and ST-20 because MBGR is the existing barrier. The response from coastal residents at the Open House was that both the Type 80 and ST-20 would be out of character, and the preference was to continue using MBGR.

7. The project description is for two 3.6 m (12 ft) wide traffic lanes and two 1.2 m (4 ft) paved shoulders. This project is not a bridge project, and it does not have a vertical wall on the east side of the roadway. This project is a tieback wall located below the roadway (see Figures 1-6, 1-7 and 1-8 depicting the cross sections of the three alternatives).

Public Access

8. See response #7 above.

Culverts, hydrology, affected vegetation/habitat

9. The culverts that would be extended contain Rock Slope Protection (RSP) at the outlets. No vegetation is growing on the RSP. The dominant species down slope of the RSP is velvet grass (*Holcus linatus).*

10. This project is not the same as the Greenwood Creek Bridge project. Please see response #7 above.

Biological Resources

11. There are three existing culverts within the project area. The existing culvert at PM 37.96 will be upgraded from 457 mm (18 in) in diameter to 610 mm (24 in). The

existing culvert at PM 37.98 is 610 mm (24 in) in diameter and 13 m (42 ft) long. To accommodate the shoulder widening and tieback wall, it will be lengthened to 17 m (57 ft). The existing culvert at PM 38.04 is 610 mm (24 in) in diameter and 16 m (53 ft) long. To accommodate the shoulder widening and tieback wall, it will be realigned and lengthened to 18 m (59 ft). The culverts convey water from storm events and road run-off with no riparian components. The Natural Environment Study (NES) and botanical report will be forwarded as requested.

12. Plant species of interest are outlined in the Initial Study, *Table 1: Project Study Area Sensitive Species Table*. Botanical surveys were conducted according to the blooming period of the target species during the spring and summer of each year from 2002-2006. The surveys completed were linear wandering transects of the project area. The Natural Environment Study (NES) and botanical report will be forwarded as requested.

13. No sensitive species animal habitats are present within the project area. The habitat affected is primarily roadside, with the staging area located in an area impacted by private vehicle storage and prior agricultural usage. The trees to be removed are an isolated patch of individuals exposed to coastal weather. Nesting surveys will be conducted prior to vegetation removal if it occurs between February 1 and July 31. The likelihood of nesting birds is extremely low.

Geologic stability and erosion control

14. Many of these are included and discussed throughout the document. More detailed plans will be developed during final design stages of the project.

Seasonal Restrictions

15. Storm water runoff and BMPs are addressed in section 2.2.1 and Appendix C. Design of the project utilizes technical reports from different specialists, including a Storm Water Data Report (SWDP) and Hydraulics Recommendations.

16. The dry season is generally considered May 1 through October 15; however, since the drainages convey strictly storm runoff, it can be stated with reasonable certainty that the drainages will not be conveying water at the time of construction.

17. As stated in response #12 and #13 above, there are no sensitive or listed biological resources that could or would be affected by the project. There is so reason to establish work windows to protect species that are not present.

Staging

18. The three acres consists of the total disturbed area required to construct the project (Section 1.4.1) - access roads, cut slopes and the staging area needed by the contractor to store construction equipment and material to backfill the west side of the tieback retaining wall.